Chapter 6

Other Considerations

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6 Other Considerations

This section addresses additional topics required by NEPA in an EIS (40 CFR 1502.16). These include: an analysis of significant unavoidable adverse impacts to the environment; the relationship between local short-term uses of the environment and long-term productivity; the identification of any irreversible and irretrievable commitments of resources; a discussion of EO 12898 (Environmental Justice, 59 Federal Register 7629 [11 February 1994]); and a discussion of EO 13045 (Environmental Health and Safety Risks to Children, 62 Federal Register 19885 [21 April 1997]).

6.1 Unavoidable Adverse Impacts

An EIS must describe any significant unavoidable impacts for which either no mitigation or only partial mitigation is feasible. The impact analysis presented in Chapters 4, Environmental Consequences and Chapter 5, Cumulative Impacts of this SEIS demonstrate that Alternatives 1, 1A, 2, 2A, 3, and 4 would have one or more significant and unavoidable impacts related to Transportation, Traffic, and Circulation, Air Quality and GHG, and Noise resources. A summary of these significant and unavoidable impacts is provided below.

6.1.1 Transportation, Traffic, and Circulation

Construction of Alternatives 1 through 4 would contribute significant project- and cumulative-level traffic at one or more study area intersections (Factor 1) that would operate at LOS E or LOS F for which there were no feasible mitigation measures. Therefore, project impacts and project-related contributions to cumulative traffic impacts to these intersections (Factor 1) would remain *significant and unavoidable*.

Implementation of Alternatives 1 through 4 would cause unacceptable levels of service at five to eight intersections. In addition, six freeway on- and off-ramp locations would deteriorate from acceptable LOS D or better to LOS E or F conditions (Factor 2). This would result in significant project-related impacts to traffic (Factor 2) and would contribute cumulatively to significant traffic increases at these locations. No feasible mitigation measures could be identified; therefore, traffic impacts at the freeway ramp junctions under Alternatives 1 through 4 would remain *significant and unavoidable.*

Alternatives 1 and 1A would result in traffic impacts related to football games and secondary stadium events at the proposed stadium (Factor 2). As many as 12 times a year, football games at the proposed stadium would result in *significant and unavoidable* impacts to game day traffic as related to congestion (Factor 2) along three study area roadways: Innes Ave, Evans Ave, and Cargo Way. Weekday evening secondary events at the stadium would result in increased congestion at intersections (Factor 2) and freeway ramps that are already operating at unacceptable level of service under 2030 cumulative conditions without a secondary event. Traffic impacts associated with the new stadium during secondary events at these locations would be *significant and unavoidable*. In addition, intersection and freeway ramps, local streets and freeway facilities would experience congestion following a football game, and traffic impacts associated with the new stadium during game days and secondary events would be *significant*.

Transit demand generated by secondary stadium event associated with Alternatives 1 and 1A would exceed available transit capacity (Factor 3). Increasing the frequency of Muni routes serving the stadium area prior to secondary events would reduce impacts to transit service on special event days. However, capacity would still not be adequate to accommodate projected transit demand (Factor 3). This shortfall in transit capacity would be considered *significant and unavoidable.*

6.1.2 Air Quality and GHG

Construction of Alternatives 1, 1A, 2, 2A, 3, and 4 would exceed the BAAQMD daily emission significance thresholds (Factor 1) for NO_x. Air quality impacts from proposed construction activities would occur from combustive emissions due to the use of fossil fuel-fired construction equipment and on-road trucks and fugitive dust ($PM_{10}/PM_{2.5}$) emissions from earth-moving activities, the use of vehicles on bare soils, and demolition of structures. Combustive emissions would exceed the BAAQMD daily significance threshold for NO_x. Alternatives 1, 1A, 2, 2A, 3, and 4 incorporate environmental controls that would minimize NO_x emissions from construction equipment and fugitive dust. The analysis of Factor 1 determined that implementation of a DCP approved by the BAAQMD and city would minimize the risks that air emissions from proposed construction activities would produce significant impacts for particulate emissions ($PM_{10}/PM_{2.5}$). However, construction activities would produce emissions that would exceed the daily NO_x significance threshold and the city would consider all feasible measures to mitigate these emissions to not significant. It is expected that mitigated NO_x emissions from project construction would remain significant with respect to Factor 1. Therefore, this impact (Factor 1) would remain *significant and unavoidable* for Alternatives 1, 1A, 2, 2A, 3, and 4 for NO_x. Proposed construction activities would result in not significant cumulative impacts to all pollutant levels other than ozone, which would be *significant*.

Proposed operations would generate emissions from onsite area sources (such as combustion of natural gas for space and water heating and other fuels for building and grounds maintenance equipment) and vehicles that would access the project site. Emissions from these sources would exceed the BAAQMD daily emission thresholds for ROG, NO_x, PM_{10}, and $PM_{2.5}$. Since the proposed action incorporates features that would minimize motor vehicle trips and energy usages in buildings, no additional feasible mitigation measures that would further reduce operational emissions are identified at this time. The project region is not expected to attain the national and/or state ambient air quality standards for ozone and $PM_{2.5}$ for several years in the future. The contribution of proposed operational emissions to future air quality would produce significant cumulative impacts to regional ozone, PM_{10}, and $PM_{2.5}$ levels.

6.1.3 Noise

The proposed action and alternatives would not result in significant noise impacts resulting in the exposure of persons to excessive construction noise levels (Factor 1) during construction.

Construction of Alternatives 1, 1A, 2, 2A, and 3 would result in exposure of human receptors to excessive construction vibration levels (Factor 2) because these alternatives would require pile driving. Vibration levels that would be considered excessive during construction activities would only occur intermittently for the duration of the activity and would only impact receptors located within 100 ft of the vibration producing activity. Once the vibration producing activities were completed, the affected receptors would no longer be impacted. Also, construction activities would only occur during the hours of 7:00 A.M. to 8:00 P.M. as required by Sections 2907 and 2908 of the Noise Ordinance. **Mitigation 1** would reduce this impact by requiring that vibration-producing equipment be located as far away from sensitive receptors as practicable. **Mitigation 2** would also be implemented, which would serve to reduce potentially significant vibration impacts by requiring pre-drilled holes and alternate methods for driving piles. **Mitigation 3** would require a pre-construction assessment of existing subsurface conditions and the structural integrity of nearby buildings subject to pile driving impacts prior to receiving a building permit. Implementation of **Mitigations 1 through 3** would reduce vibration impacts; however, impacts would remain *significant and unavoidable* for Alternatives 1, 1A, 2, 2A, and 3. No pile driving would occur for Alternative 4.

Temporary increases in ambient noise levels from construction-related traffic (Factor 3) during construction of Alternatives 1, 1A, 2, 2A, 3, and 4 would result in temporary *significant* impacts during construction activities. **Mitigations 1, 2, and 3** would minimize or reduce construction related noise levels to the extent feasible. However, this impact would remain *significant and unavoidable* during construction activities. If other projects are simultaneously in operation, noise from truck traffic (Factor 3) associated with multiple construction projects occurring at the same time as construction involved with Alternatives 1, 1A, 2, 2A, 3, and 4 could result in temporary *significant* cumulative noise impacts related to simultaneous construction activities in close proximity to one another. Cumulative noise impacts would be temporary and only occur during the combined construction period. No feasible mitigation beyond that associated with the proposed action is possible, thus temporary cumulative construction-related noise impacts would be *significant and unavoidable*.

Operation of projects in the vicinity would result in increases in ambient noise levels (Factor 4) associated with human occupation of buildings and use of commercial establishments. Increases in both the number of households and the population would translate generally into an increase in anthropogenic noise from vehicle traffic, playground activities, social activities, commercial businesses, landscape maintenance and other noise-generating activities associated with residential areas. In addition, while local job opportunities would be expected to improve, the activities associated with employment in R&D and commercial establishments (both for the proposed action and cumulative projects) would be expected to generate incrementally more noise than current levels. These activities would be expected to cause a substantial permanent increase in ambient noise levels above 70 dBA Ldn in existing and future residential areas. Implementation of **Mitigation 4** (noise shielding) and **Mitigation 5** (building design with sound attenuation) would reduce project impacts to not significant. However, while this would be in the range of a typical urban environment, the impact of these cumulative impacts would be *significant and unavoidable*. Operational impacts associated with Factor 5 (operation-related groundborne vibration) would not be expected to cause detectable vibration at nearby residences (along streets) and would be not significant.

Operation of Alternatives 1, 1A, 2, 2A, 3, and 4 would expose persons to a substantial increased ambient noise levels (Factor 6) along the major project site access routes resulting from project-related traffic as well as ambient growth projected over the next 20 years. This would result in *significant impacts*. Implementation of **Mitigation 4** (consideration during site planning of the use of barriers or buildings to shield residential outdoor activity areas so as to reduce noise levels therein to 60 dBA Ldn or less) and **Mitigation 5** (inclusion of noise attenuating building elements inside new residences) were proposed to address significant traffic noise increases in these residential areas. However, while these mitigations are readily applicable to new construction, their applicability to existing structures may be limited. Therefore, impacts to Factor 6 would remain *significant and unavoidable* for Alternatives 1, 1A, 2, 2A, 3, and 4.

Operations associated with Alternative 1 and Alternative 1A would expose human receptors to excessive noise from stadium events (Factor 7). **Mitigation 6** would be implemented to minimize game/concert-related temporary increases in ambient noise levels at nearby residences, and would depend on factors that would be beyond the control of the city as the lead agency, or the future developer or owner of the property to guarantee. In addition, **Mitigation 7** would provide Residential Use Plan Review by a qualified acoustical consultant. However, because **Mitigation 6** cannot be guaranteed at this time, operation of Alternatives 1 and 1A would result in *significant and unavoidable* noise impacts from football games and concerts (Factor 7).

6.2 Irreversible/Irretrievable Commitments of Resources

NEPA requires that an EIS analyze the extent to which primary and secondary effects of the reuse alternatives and the No Action Alternative under consideration would commit nonrenewable resources to

uses that future generations would be unable to reverse. This section describes irreversible and irretrievable commitments of resources associated with the implementation of the proposed action and alternatives.

Irreversible is when primary or secondary impacts from use would limit future use options. Irreversible resource commitment applies primarily to the use of nonrenewable resources (e.g., soils, wetlands, visual resources, minerals, or cultural resources) and to those resources that are renewable only over long time spans (e.g., soil productivity) and the subsequent affects that the use of these resources would have on future generations. Such actions are considered irreversible because implementation would affect a resource that has deteriorated to the point that renewal can occur only over a long period of time or at great expense, or because they would cause the resource to be destroyed or removed.

Irretrievable resource commitment applies to the loss of production or use of resources as a result of that decision. It represents opportunities foregone for the period of time that a resource cannot be used. Irretrievable is when use or consumption would be neither renewable nor recoverable for use by future generations including extinction of a threatened or endangered species, disturbance of a cultural site, loss of land production, or use of natural resources including minerals and coal. For example, production or loss of agricultural lands can be irretrievable, while the action itself may not be irreversible.

In this regard, the DoN disposal of HPS increases options for site use and for responsible long-term resource management and makes no resource commitments. The DoN disposal alternatives would require a significant commitment of both renewable and nonrenewable energy and material resources for demolishing and constructing structures and infrastructure. Developing the site according to any of the proposed redevelopment alternatives would commit HPS to that general set of uses for the foreseeable future.

Implementing any of the six reuse alternatives would require short-term commitments of both renewable and nonrenewable energy and material resources for demolition, and commitments for construction of the structures and infrastructure improvements required for implementation. These developments would represent a very large commitment of financial resources and would commit HPS to that general set of uses for the foreseeable future.

Equipment used during construction and demolition activities at HPS would consume petroleum fuels, such as gasoline and diesel. This energy expenditure would occur over the short term and would not substantially increase the overall demand for electricity or natural gas. Implementing the reuse alternatives would consume large volumes of nonrenewable fossil fuel because of increased trips via automobile, bus, and ferry and/or boat. The increase in development likely would result in an increase in the annual amount of energy consumed in heating, air conditioning, and other operational uses of energy. Infrastructure improvements would be provided corresponding to each new phase of development to meet increased demand. This would be an irretrievable and irreversible loss of electricity and natural gas.

The six reuse alternatives would temporarily and permanently impact existing wetlands and other habitats including nontidal freshwater wetland, tidal salt marsh, non-tidal salt marsh, and bay habitat. Temporary impacts to wetlands and other habitats would not be irreversible or irretrievable because, after construction, areas disturbed would be restored to the previous condition. Permanent losses would be irreversible as long as the fill remains in place. However, permanent impacts to wetlands and jurisdictional waters would not be irretrievable as they would be mitigated by creation of wetlands at a minimum 1:1 ratio. Aside from the wetland and other habitat impacts discussed above, the biological impacts at HPS would be limited mostly to non-native annual grassland with some landscaped areas/ornamental plants.

6.3 Short-Term Uses and Long-Term Productivity

NEPA requires that an EIS consider the relationship between short-term uses of the environment and the maintenance and enhancement of long-term productivity. The analysis evaluates the short-term benefits of the proposed project alternatives (disposal and reuse) compared to the long-term productivity derived from not pursuing the proposed alternatives.

A short-term use of the environment is generally defined as a direct consequence of a project in its immediate vicinity. Short-term effects could include localized disruptions and higher noise levels in some areas. The proposed action and alternatives would result in both short- and long- term impacts and benefits.

The proposed action involves disposal of and subsequent reuse of existing military lands at HPS. Because most of HPS has been developed, redevelopment under any of the reuse alternatives would do little to negatively affect the short- or long-term productivity of the area. However, the proposed action would result in short-term effects on the environment due to the extent of construction activities on HPS. Project-related construction activities would temporarily increase air pollution emissions and noise in the immediate vicinity of HPS and result in the loss of significant historic resources. Impacts from air quality and noise would be short-term and would not be expected to result in permanent damage or long-term changes in productivity.

As identified in Chapters 4 and 5, operations related to disposal and reuse of HPS would increase traffic, air pollution emissions, and noise in the vicinity of HPS. Since these impacts cannot be mitigated to not significant levels, they would result in decreases in the long-term productivity of the environment on HPS.

Disposal and subsequent reuse of HPS could result in both short- and long-term environmental gains that would enhance productivity of the site. Improved vehicle access and increased public recreation opportunities along the San Francisco Bay shoreline under reuse would be both a short- and long-term gain. The proposed action and alternatives would enhance long-term productivity, resulting in increased employment and housing, and other improvements in economic activity and infrastructure. Consequently, the short-term impacts on the natural environment would be minimal in relation to the positive effects on long-term human productivity in the area.

6.4 Environmental Justice

6.4.1 Background

This section discusses minority and low-income populations within and surrounding the project site and examines the potential for construction or operation of the proposed action and alternatives to result in disproportionately high and adverse human health or environmental effects on these populations.

6.4.2 Regulatory Framework

6.4.2.1 Environmental Justice

EO 12898 (1994), "*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*," provides that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations" (CEQ 1997).

Federal agencies should consider the composition of the affected area to determine whether minority populations, low-income populations, or Indian tribes are present in the area affected by the proposed action and, if so, whether there may be disproportionately high and adverse human health or environmental effects on any of them (CEQ 1997). In addition, federal agencies are required to ensure that public outreach programs provide sufficient opportunities for participation by minority and low-income populations affected by the project. This topic is addressed in Section 6.4.4, Public Outreach, below.

6.4.2.2 Protection of Children

EO 13045 (2007), "*Protection of Children from Environmental Health Risks and Safety Risks*" requires that "each Federal agency *(a)* shall make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children: and *(b)* shall ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risk or safety risks."

6.4.3 Existing Conditions

The ROI for environmental justice is defined as the Bayview Neighborhood. For purposes of this analysis, minority populations and low-income populations are defined as follows:

Minority populations—Persons of Hispanic or Latino origin of any race; plus, persons who are Black or African American; American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander; some other race; or persons of two or more races (without double-counting persons of Hispanic or Latino origin who are also contained in the latter groups).

Low-income populations—Households below the poverty level, which varies depending on family size.

Census data were used to estimate the number of persons in minority populations and low-income populations living in areas that could potentially be affected by the proposed action and alternatives. The information included below describes the baseline conditions for the project area.

In order to describe existing conditions in the project area, *concentrations* of minority and low-income populations, sometimes referred to as environmental justice communities, were calculated for census Block Groups wholly or partially within the Bayview Neighborhood. These data are presented for descriptive purposes and do not indicate the probable location of disproportionate impacts.

A minority population concentration is identified as follows:

- The minority population in the community is equal to or greater than 50 percent; or
- The minority population in the community is 10 or more basis points higher than that of the "base" community (city or county, depending on location).

A low-income population concentration is identified as follows:

- The poverty level in the community is 10 or more basis points higher than the "base" community. Note that the 10 percent differential is consistent with the analysis of existing demographics performed for the EIR (Appendix C1), but is not used as a criterion in the environmental justice impact assessment in the FSEIS. Also, because the cost of living in California compared to other states, and San Francisco compared to California, is high, the data provide other bases for comparison, including the state, the metropolitan area, and the city/county.

Public Health - According to a study undertaken by the San Francisco Department of Public Health (DPH), a summary of which is included in the Final EIR, Vol.VII, C&R-67-78, Bayview residents have poorer health outcomes than San Francisco as a whole, with the leading causes of premature deaths from violence, ischemic heart disease, tracheal/bronchial/lung cancer, HIV/AIDS, cerebrovascular disease, poisonings, nephritis/nephrosis, other cardiovascular disease, chronic obstructive pulmonary disease and congenital anomalies (SFRA 2010). Low income and minority communities are more exposed to pollution impacts for several reasons (e.g. closer proximity to industrial and highway pollution sources, occupying housing that is old or inadequately maintained, having more limited information about pollution effects and avoidance and having more limited access to health care, etc.) and thereby, are potentially more vulnerable.

6.4.3.1 Minority Populations

Race and ethnicity data were obtained from business and government sources including Claritas, a company specializing in demographic data (Claritas 2008), the United States Census Bureau (U.S. Census 2008a and b), and the California Department of Finance (2007).

The study area for the proposed action includes 28 Block Groups within the Bayview Neighborhood and includes the project site, as illustrated by Figure 6.4.3-1. As the name implies, Block Groups are a combination of census blocks. Census blocks are a subdivision of a census tract or block numbering area and are the smallest geographic entity for which the decennial census tabulates and publishes sample data.

The percent minority was estimated for each Block Group by dividing the total number of Black, Indian/Alaskan, Asian, Hawaiian/Pacific Islander, and Hispanic persons by the total number of persons per Block Group. Statistics for San Francisco, the San Francisco-Oakland-Fremont Metropolitan Statistical Area, and the State of California were included in this study for comparison purposes and to be used as the base community. Table 6.4.3-1 provides a breakdown of race and ethnicity by Block Group and base community.

On average, there is a larger percentage of minorities in the study area than in the larger base communities that consist of San Francisco, the San Francisco–Oakland-Fremont Metropolitan Statistical Area, and the State of California. The project site consists of the majority of Block Group 60750606001, which has a total minority population of 92 percent, as shown in Table 6.4.3-1.

The Block Groups in the study area combined have almost a 90 percent total minority population; only one Block Group in the study area has a total minority population less than 50 percent (Block Group 60750251003). The minority population of the study area and the project site are well over 10 percentage points higher when compared to any of the base communities, which range from 54.3 percent to 57.0 percent minority population, as reflected in Table 6.4.3-1.

6.4.3.2 Low-Income Populations

Household poverty estimates by Block Group within the study area were obtained (Claritas 2008). City and county-level data were obtained from the U.S. Census (2008a and 2008b).

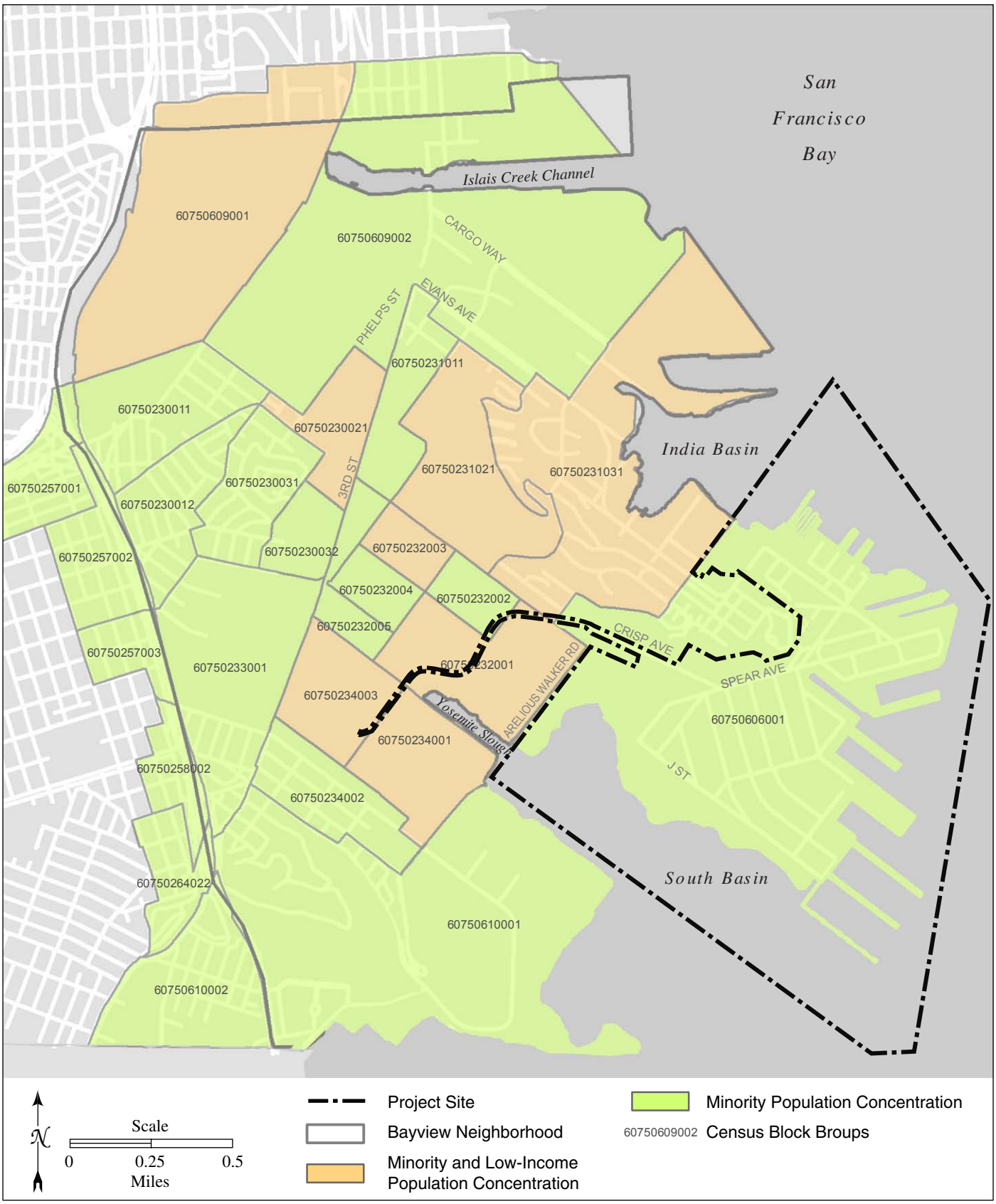

Figure 6.4.3-1. Mintority and Low-Income Population Concentrations for Census Block Groups

Table 6.4.3-1. Minority Populations								
Area Block Groups (Key to Figure 6.4.3-1)	***Population***	***Percent White***	***Percent African American***	***Percent American Indian/ Alaska Native***	***Percent Asian***	***Percent Hawaiian/ Pacific Islander***	***Percent Hispanic***	***Percent Minority***
Project Site								
60750606001	678	8.0%	60.8%	0.9%	20.5%	1.6%	13.4%	92.0%
Study Area (Includes Project Site)								
60750234001	986	10.8%	54.4%	0.3%	1.8%	13.5%	26.9%	89.2%
60750610001	971	15.7%	31.3%	0.0%	31.7%	0.3%	27.4%	84.3%
60750234002 *	2,182	10.7%	25.9%	0.1%	23.9%	3.8%	40.9%	89.3%
60750230011	2,182	9.9%	16.3%	0.7%	56.3%	0.6%	20.9%	90.1%
60750230012	2,972	8.4%	18.6%	0.2%	62.7%	1.2%	10.4%	91.6%
60750230021	2,587	12.5%	36.6%	0.4%	15.7%	0.1%	37.6%	87.5%
60750230031	2,758	10.1%	23.3%	0.0%	53.0%	1.3%	14.5%	89.9%
60750230032	1,243	7.7%	42.1%	0.5%	22.1%	2.2%	29.6%	92.3%
60750231011	1,268	16.1%	33.4%	0.5%	30.8%	0.6%	25.9%	83.9%
60750231021	3,314	7.9%	67.3%	0.2%	13.1%	0.8%	12.5%	92.1%
60750231031	4,397	3.6%	73.0%	0.2%	2.4%	13.5%	6.1%	96.4%
60750232001	546	4.6%	45.4%	0.0%	11.5%	2.0%	37.7%	95.4%
60750232002	1,056	5.0%	51.0%	0.9%	17.0%	3.5%	24.2%	95.0%
60750232003	1,044	7.3%	53.1%	0.3%	4.1%	0.5%	37.5%	92.7%
60750232004	1,084	14.7%	39.7%	3.1%	11.1%	1.0%	37.6%	85.3%
60750232005	672	10.1%	37.8%	1.3%	27.1%	0.7%	22.2%	89.9%
60750233001	2,740	6.8%	12.4%	0.5%	65.3%	1.2%	15.4%	93.2%
60750234003	251	12.7%	57.0%	0.0%	12.0%	2.8%	11.2%	87.3%
60750251003	798	51.8%	7.8%	0.1%	18.3%	0.1%	25.7%	48.2%
60750257001	2,254	15.0%	3.0%	0.2%	67.5%	0.0%	18.2%	85.0%
60750257002	1,729	12.3%	2.7%	0.3%	62.3%	1.8%	22.3%	87.7%
60750257003	1,193	14.2%	4.4%	0.6%	55.0%	0.3%	26.8%	85.8%
60750258002	812	14.7%	14.9%	0.1%	50.6%	0.0%	22.9%	85.3%
60750264022	1,534	11.8%	9.9%	0.2%	60.9%	0.9%	17.3%	88.2%
60750609001	260	28.5%	43.8%	0.0%	10.0%	3.1%	25.0%	71.5%
60750609002	353	44.5%	38.0%	0.3%	0.8%	0.0%	20.4%	55.5%
60750610002	1,846	11.2%	5.3%	0.0%	75.6%	1.3%	6.8%	88.8%
Average percentage Total of the Study Area Block Groups	**43,710**	**11.0%**	**32.2%**	**0.4%**	**36.0%**	**2.7%**	**20.4%**	**89.0%**

Table 6.4.3-1. Minority Populations

Area Block Groups (Key to Figure 6.4.3-1)	*Population*	*Percent White*	*Percent African American*	*Percent American Indian/ Alaska Native*	*Percent Asian*	*Percent Hawaiian/ Pacific Islander*	*Percent Hispanic*	*Percent Minority*
Base Communities								
San Francisco City/County	810,078	45.1%	6.7%	0.3%	31.1%	0.5%	13.5%	54.9%
San Francisco-Oakland-Fremont Metropolitan Area	4,379,449	45.7%	8.3%	0.4%	21.2%	0.7%	21.0%	54.3%
California State	38,246,598	43.0%	5.9%	0.8%	11.4%	0.6%	36.2%	57.0%

Notes:
* Concentration of Minority Populations
a. Total population of Project Site/Study Area Block Groups
Sources: Claritas 2008; California Department of Finance 2007.

The U.S. Census defines the average poverty level in the United States for a family of four as a maximum annual income of $21,203 or less for 2007 (U.S. Census 2008b). Table 6.4.3-2 shows the percentage of households within the given Block Group below the poverty level and indicates whether there is a concentration of low-income households compared to the city/county as a whole.

The percentage of low-income households in the Block Groups in the study area ranges from zero to 53.4 percent. Using the City and County of San Francisco as the base community, any Block Group that contains at least 20.6 percent low-income households (which is 10 percentage points above the percentage reflected for the city and county) would be considered a low-income population concentration. As shown in Table 6.4.3-2, six Block Groups contain concentrations of low-income households. Eighteen Block Groups, or 64 percent of the 28 Block Groups in the study area, have a higher percentage of households in poverty than the City and County of San Francisco. Note that a higher number, 13 Block Groups, would be considered to have a low-income population concentration if the state average of 12.4 percent low-income is used for comparison.

Table 6.4.3-2. Low-Income Populations

Area Block Groups (Key to Figure 6.4.3-1)	*Percent of Households Below Poverty Level*
60750606001*	16.7%
60750234001	40.1%
60750610001	3.9%
60750234002	15.9%
60750230011	8.5%
60750230012	11.8%
60750230021	24.8%
60750230031	3.5%
60750230032	16.3%
60750231011	15.9%
60750231021	25.2%
60750231031	53.4%
60750232001	19.2%
60750232002	15.0%
60750232003	20.1%
60750232004	8.7%
60750232005	4.1%
60750233001	10.7%
60750234003	48.0%
60750251003	6.8%
60750257001	15.1%
60750257002	12.8%
60750257003	2.4%
60750258002	1.8%
60750264022	1.3%
60750609001	24.2%
60750609002	0.0%
60750610002	11.1%
Average of the Study Area Block Groups	**15.6%**
Base Communities	
City and County of San Francisco	10.6%
San Francisco-Oakland-Fremont Metropolitan Area	9.0%
California State	12.4%

Notes:
* Project Site.
Source: Claritas 2008.

The project vicinity, which consists of the majority of Block Group 60750606001, does not contain such a concentration because the low-income households comprise 16.7 percent of all households, which is less than 10 percentage points higher than the base communities. The percent low-income at the project site of 16.7 percent does, however, exceed the state average of 12.4 percent, the metropolitan area average of 9.0 percent, and the City and County of San Francisco at 10.6 percent.

For informational purposes, the median household income of the Block Groups in the study area ranges from $14,537 to $91,146. The median household incomes of the base communities range from $59,928 for the State of California to $75,747 for the San Francisco-Oakland-Fremont Metropolitan Statistical Area.

6.4.3.3 Indian Tribes and Trust Assets

Table 6.4.3-1 indicates that American Indian/Alaska Native populations in the study area comprise 0.4 percent of the total population. The information below contains additional explanation of the federal process for recognizing and engaging with Indian Tribes and a further discussion of ITAs.

There are 564 Indian Tribes recognized by the federal government (DOI 2009). This recognition establishes a tribe as an entity with the capacity to engage in government-to-government relations with the United States or individual states, and also as one eligible to receive federal services. Federal recognition is established as a result of historical and continued existence of a tribal government by EO or legislation, and through the federal recognition process recently established by Congress.

The relationship between the United States government and those tribes is characterized as one between sovereigns (i.e., between a government and a government). The federal government is obligated under the Federal-Tribal Trust to protect Tribal interests, a duty that is referred to as trust responsibility. This trust doctrine is further defined through laws, EOs, judicial decisions, and agreements (BIA 2009).

No Native American tribes, groups, or individuals have identified any specific Indian Trust Assets (ITAs) in the study area for this project. ITAs are legal interests in assets that are held in trust by the United States government for federally recognized Indian tribes or individuals. The trust relationship usually stems from a treaty, EO, or act of Congress. The Secretary of the Interior is the trustee for the United States on behalf of federally recognized Indian tribes. "Assets" are anything owned that holds monetary value. "Legal interests" means there is a property interest for which there is a legal remedy, such a compensation or injunction, if there is improper interference. Assets can be real property, physical assets, or intangible property rights, such as a lease, or right to use something. Indian trust assets cannot be sold, leased, or otherwise alienated without United States' government approval (DOI 2007). Trust assets may include lands, minerals, and natural resources, as well as hunting, fishing, and water rights, Indian reservations, rancherias, and public domain.

6.4.3.4 Child Population

The most recent population data on children by Block Group are from 2004 (Claritas 2008). These data contain a breakdown of population by age; all residents under the age of 18 years were counted as children.

The project vicinity, which consists of the majority of Block Group 60750606001, has a total child population of 27.1 percent. Overall, the child population in the study area in 2004 was 27.6 percent of the total population of 44,220 residents. A substantial number of schools and daycare centers, as well as parks and playgrounds where children typically congregate, can be found in the study area. Children can be particularly sensitive to air pollutants and diesel exhaust. Even short-term (e.g., episodic) exposure

can create health impacts. In addition, Bayview Hunters Point residents, as a whole, have substantially higher rates of hospitalizations and emergency room visits for preventable conditions. (Note that the Health Risk Assessment for this project takes into consideration locations of schools and health impacts to school-age children from toxic air contaminants [see Sections 4.2.2.1.1 and 4.2.2.2.1, Criteria Pollutants]).

6.4.4 Public Outreach

The DoN initiated an effort in April 2009 to provide additional public outreach to the BVHP community regarding issues related to the proposed disposal and reuse of HPS. The purpose of the additional public outreach was to further address environmental justice issues and concerns about the proposed action and alternatives, and to improve communication with the local community. Although the DoN conducted public scoping during this SEIS process, the consensus was that not all community groups had been adequately represented. Residents of the BVHP neighborhood are predominantly minority (89 percent), representing a diversity of racial, cultural and ethnic groups, varied nationalities, and spoken languages. In addition, the percent of households living below poverty is substantially higher than the city as a whole. These factors were considered when additional public outreach was initiated after scoping to better involve the whole community, create a dialogue, and to hear and consider specific concerns.

With respect to providing technical assistance for the community to interpret environmental documents, USEPA has funded through its "Technical Assistance Services for Communities" and "Technical Assistance Grant" programs – technical assistance for the community to interpret environmental documents, which includes funding these programs for HPS.

The Mayor's Hunters Point Shipyard Citizens Advisory Committee (CAC) and the CAC Environment and Reuse Subcommittee have held many meetings, panel discussions and workshops on the DoN's cleanup and interface with redevelopment. The Shipyard CAC has invited the DoN to present information at their meetings, and the Shipyard CAC will continue to hold meetings and workshops of interest to the community where the public can receive information and provide input. In addition, the city has had an environmental engineer at the DPH assigned to HPS since 1993 to address environmental health issues and concerns, and retains consultants to assist the DPH in their efforts and to provide an additional resource to assist community members with their inquiries.

6.4.4.1 Public Outreach Meetings

The DoN conducted outreach meetings utilizing the services of a public outreach firm familiar with the local community. Public outreach meetings were planned and conducted with a variety of community groups, including:

- Samoan/Pacific Island Community Development Group;
- Chinese for Affirmative Action;
- Southeast Community Facility Commission;
- Bayview Hunters Point Seniors;
- Bayview Alliance for Black Educators;
- Bayview Hunters Point Public Housing Tenants and "Power" advocate group;
- Bayview Hill Neighborhood Association;
- Hispanic Community Group;

- Bayview Churches Association;
- The Tabernacle Ministers Group; and
- Environmental justice organizations: Health & Environmental Resource Center (HERC); Literacy for Environmental Justice (LEJ).

The intent of the meetings was to bring interested parties and stakeholders up to speed on project details and the NEPA environmental review process, and to identify environmental justice issues and concerns. The participating groups represent diverse communities within the potentially affected area that had also expressed interest in additional outreach concerning the proposed action and environmental review process.

The outreach meetings were held either at the Southeast Community Facility in BVHP or at a location proposed by the community group. At the meetings, there was a sign-in sheet for participants and information handouts were provided. The handouts consisted of a one-page summary of the purpose and need for the meeting in the native language; a Fact Sheet summarizing the proposed action and alternatives, NEPA environmental review process and schedule milestones; an issues survey that participants could fill out and turn in; and a copy of the visual presentation for the meeting. Large posters depicting different elements of the proposed action and alternatives were also displayed at the meetings. Participants were informed of regulatory requirements for public outreach to address environmental justice concerns and given an opportunity to participate in the process. A DoN representative gave a visual presentation that contained additional detail about the proposed action and alternatives, environmental review and issues, and contact information. Translators were used when there was a significant language barrier. The participants were given a chance to ask questions or provide comments. Finally, the issues survey was circulated to participants to be completed and turned in at the end of the meeting.

After the outreach meetings, summaries of the meetings and key issues and concerns of the community group were prepared. The meetings summary information is presented in Table 6.4.4-1. This information was used to help guide the preparation of the SEIS. There was also a substantial amount of follow-up after outreach meetings to provide additional information and respond to phone calls and emails containing questions and requests for information from meeting participants.

6.5 Environmental Consequences

6.5.1 Methodology

The significance criteria and analytic method used to analyze environmental justice effects and impacts on children are described below.

6.5.1.1 Significance Criteria

The purpose of this analysis is to determine whether significant adverse environmental impacts would disproportionately affect minority and low-income populations compared to other populations in the project vicinity or have adverse effects on children. Impacts related to environmental justice would be significant if a project-related activity that results in a significant and unavoidable impact were to have a disproportionate effect on minority or low-income populations. A disproportionate effect is defined as an effect that is predominantly borne, more severe, or of a greater magnitude in an adversely affected area with meaningfully higher concentrations of protected populations than in other areas (CEQ 1997). Impacts related to children would be significant if significant unavoidable resource impacts were to cause adverse effects on facilities serving chidren, such as schools or daycare centers. Although Section

Table 6.4.4-1. Overview of Community Outreach Meetings and Comments		
Community Group	***Date/Time/Location of Outreach Meeting***	***Meeting Overview***
Chinese for Affirmative Action	20 May 2009 6:00 – 8:00 P.M. Bayview Williams Ave. Police Station	This group had a number of questions about the shipyard site cleanup process, contaminants, and end result. They also wanted to know how traffic/road congestion from the proposed action would be dealt with; how much of the redevelopment would be open space/parks; and what uses the parks would support. A vote on preferred alternatives was taken. The results of the vote were: Stadium Alternative - 24 votes; No-Stadium Alternative - 34 votes; No Action Alternative - 0 votes. Overwhelmingly, the group wanted to have follow-up meetings, so they could be educated about the clean-up process, as well as issues such as the transportation plan, air and soil quality, and the various development plans.
Southeast Community Facility Commission	27 May 2009 6:00 – 8:00 P.M. Southeast Community Facility	Overall, the Commission Board was supportive of this SEIS process, and hoped that the DoN would be comprehensive in their efforts to solicit input from the entire community. They wanted to make sure nobody was left out, and everyone was educated about the issues that would impact them, including the African-American community and the churches. They stressed that communication was the key, and that the people should be kept abreast of any changes or updates as the process went along. Specific questions included status of the cleanup effort, and role of the DoN versus the city and developer in developing the alternatives and environmental review.
Samoan/Pacific Island Community Development Group	2 June 2009 12:00 – 2:30 P.M. Southeast Community Facility	Priority issues included: providing an environmental forum to educate the local Samoan population regarding the cleanup process, this SEIS, and potential development; continued and consistent communication; jobs and housing for people within the community; and the need for the SEIS to be written in a manner that the general public can understand. The group emphasized their need to be educated about the environmental issues that will impact them. They were interested in scheduling a follow-up environmental forum to address the issues listed above.
Bayview Hunters Point Public Housing Tenants	6 June 2009 11:00 A.M. – 1:00 P.M. Southeast Community Facility	Priority issues and questions included early transfer of parcels undergoing cleanup; capping vs. cleaning/removal; standards and types of cleaning (residential, industrial, etc.); and how this group could learn more about the cleanup. They also wanted to know how Proposition G impacts the redevelopment plans. The group was overwhelmingly in favor of having an additional educational meeting with the DoN to answer the many questions that were posed. They wanted to make sure they were educated in a way that they could understand complex issues and technical information.
Bayview Hunters Point Seniors	25 June 2009 12:30 – 2:30 P.M. Multipurpose Senior Services Center	Executive Director Kathy Davis discussed the concerns of her group of seniors, including lack of engagement in the community planning process, and vulnerability of seniors to health risks associated with toxic cleanup, construction, and traffic. She inquired about the type of senior housing, facilities, and services planned for HPS and articulated the need for onsite services and care for seniors. She indicated that the best way to engage her patients would be through small group meetings with interested individuals.

Table 6.4.4-1. Overview of Community Outreach Meetings and Comments		
Community Group	***Date/Time/Location of Outreach Meeting***	***Meeting Overview***
Environmental Justice Organizations	25 June 2009 6:00 – 8:00 P.M. Southeast Community Facility	This meeting was attended by HERC and others. They hoped the DoN and USEPA could find ways to engage everyday people in the cleanup and reuse process in a way that they could understand, and provide accurate information via fact sheets or a resource center to dispel rumors being circulated in the community. They thought it would be helpful to have a forum to explain complex technical information to them in layperson's terms. They also thought the people living around the shipyard should be tested (blood tests, etc.) periodically to identify any potential trends or patterns from the site contamination and cleanup. They indicated it would be best to conduct this work with community-based organizations who were not affiliated with the site developer, Lennar Urban. HERC deals with many incidents of young people with rashes, nose bleeds, headaches and asthma, and they wanted to know how the DoN will protect young people from being exposed to more harm during the construction phase.
Bayview Hill Neighborhood Association	29 June 2009 6:00 – 8:00 P.M. St. Paul's of the Shipwreck Church	This session with members of the Bayview Hill Neighborhood Association took place during their regularly held monthly meeting. Overall, the group was interested in how to ensure that their voices as homeowners would be heard, and how they could stay abreast of the latest project information. They were concerned that they would not be taken seriously because they are not part of an official community forum. The expressed a desire for a supermarket and restaurants. They had redevelopment questions about housing heights and density, game-day and traffic/transportation plans in general, and alternatives to the proposed action.
Bayview Alliance for Black Educators	15 July 2009 1:00 – 3:00 P.M. Southeast Community College	The leader of the Black Educators was given the presentation materials to review and disseminate to his membership. He said he would brief other active members of the group. This group is concerned about protecting the health of young people living and going to school around the project area. They hoped new housing and schools would be built, and that existing schools be improved. They suggested using the PTAs to engage more people.
Bayview Churches Association	30 September 2009 6:00 – 8:00 P.M. Southeast Community Facility	This group, represented by Rev. McCray of the Tabernacle Ministers, wanted to get the latest about the project's progress. They are concerned that the redevelopment won't move ahead and be completed because of opponents of the proposed action that are attempting to sabotage the community benefits out of spite for the developer, Lennar Urban.
Hispanic Stakeholder Group	30 September 2009 6:00 – 8:00 P.M. Southeast Community Facility	Questions and concerns focused on details of the proposed action, including size and density of housing, proposed bridge, increases in traffic, the stadium and its cost, land swap, contamination & cleanup of HPS, wetlands preservation, access to parks, and community connectivity. They also wanted to know about the redevelopment decision-making process, if there should be development restrictions for certain parcels due to contamination, and how contractors could find work with the redevelopment program. This group was concerned that only forums like the PAC and CAC were speaking for the entire community. The group expressed interest in receiving periodic updates on progress and various suggestions were made in regards to further outreach including, a website, newsletter, blog, and resource office.

Table 6.4.4-1. Overview of Community Outreach Meetings and Comments		
Community Group	***Date/Time/Location of Outreach Meeting***	***Meeting Overview***
The Tabernacle Ministers Group	10 February 2010 9:00 – 11:00 A.M. Providence Baptist Church	This group consisted of the Tabernacle Community Development Corporation (TCDC) Board members, including Rev. McCray. TCDC is dedicated to ensuring community vitality in underserved neighborhoods in San Francisco. TCDC supports projects for low income housing in the Bayview community such as "Plot 51" within Parcel A at Hunters Point. The goal is to make sure that low income residents within the community have an affordable place to live as redevelopment occurs. Overall, the Board was supportive of this SEIS process, and supported the efforts to reach out to the entire community. There was much discussion on perceived community attitudes on redevelopment of Hunters Point. They stated that while there may seem to be opposition in the community, the silent majority supports redevelopment. Issues/Questions discussed included: · Details on affordable housing. · Don't the 49ers plan to go to Santa Clara? · Environmental justice concerns. · Naturally occurring asbestos concerns. · General questions on clean-up. · May we review the SEIS? · What is the schedule for the SEIS process? · Please include TCDC members on the mailing list. The DoN requested to coordinate with TCDC in the future on public outreach for the clean-up program.

6.4.3.2, Low-Income Populations, which includes the description of baseline demographic conditions, uses 10 basis points above the percentage reported for the city and county as a framework for estimating low-income population concentrations, this characterization is descriptive only and does not determine the environmental justice impact analysis nor is it used to assess disproportionate effects. Where significant unavoidable adverse impacts are identified for a resource, the potential environmental justice effects are evaluated with respect to the severity and magnitude of the effect on protected populations regardless of whether the percentage of low-income populations in the affected area is 10 percent greater than the surrounding comparison populations.

6.5.1.2 Analytic Method

The following tasks were performed to prepare this section: 1) reviewed impact findings for environmental, economic and social resources evaluated in Sections 4.1 through 4.13 to identify unavoidable significant project-level and cumulative impacts; 2) reviewed these significant impacts to determine if they would adversely affect human populations (i.e., the public); 3) evaluated demographics within the adversely affected area(s) to determine if concentrations of minority or low-income populations, as defined above, or facilities serving children, would be affected; and 4) for disproportionate effects identified in the previous step, determined whether additional mitigations were feasible.

Chapter 4, Environmental Consequences, analyzes and discloses all of the adverse impacts of the proposed action and alternatives, including the No Action Alternative. Chapter 5, Cumulative Impacts, analyzes and discloses cumulative impacts for each resource topic. Tables 2.4-1 and 5.3-1 summarize resource impacts for the proposed action and each alternative, as presented below:

- The following resources would have one or more *significant unavoidable* impacts: Transportation, Traffic, and Circulation, Air Quality, and Noise. These resource impacts were reviewed further to determine whether they would constitute disproportionate effects on minority and low-income populations or adverse effects on children.
- For all other resource topics, no significant unavoidable impacts were identified and no disproportionate effects on minority and low-income populations or adverse impacts on children would occur. In a number of cases, mitigations were identified for significant impacts so that they would not be significant.

6.5.1.3 Public Participation

During the public scoping meeting for the SEIS, members of the public expressed strong concerns regarding potential health impacts to the community from cleanup activities and construction at contaminated sites. The SEIS concludes that, with inclusion of recommended mitigation measures, there would not be significant impacts related to hazardous waste from the project site cleanup or from construction and operation of the proposed action and alternatives. Potential impacts on subsistence fishing were another concern expressed. The potential for increased access to subsistence fishing opportunities due to public access via HPS redevelopment would result in less-than-significant beneficial impacts given that such access is already available in other areas along the bay and, therefore, this location would not substantially increase the opportunity.

EO 12898 requires federal agencies to work to ensure effective public participation and access to information. The DoN specifically elicited participation of minority and low-income populations during the NEPA process and provided affected communities with the tools (e.g., presentations and background explanations in plain language) to ensure that the communities understood technically complex issues and

had meaningful opportunities for participation and input. A list of outreach meetings is included in Section 6.4.4, Public Outreach.

6.5.2 Effects by Resource Area

6.5.2.1 Transportation, Traffic, and Circulation

A number of transportation impacts would be significant and unavoidable with and without mitigation, as described below (refer to Figure 3.1.3-1 for a map of the regional roadway network.) Unless noted, the impacts would also be cumulative. (Note that traffic-related air quality impacts from the alternatives (i.e., air pollutants and associated health risks) are addressed in Section 6.5.2.2, Air Quality. In addition, traffic and equipment noise are addressed in Section 6.5.2.3, Noise).

Construction Vehicle Traffic and Roadway Impacts (Factor 1) for Alternatives 1-4, 1A and 2A would be significant and unavoidable with mitigation. For Alternative 1, these impacts would also be cumulatively significant and unavoidable. Implementation of **Mitigation 1**, develop and implement HPS construction TMP, would reduce the impact, but the impact would still be significant. Main access routes to the project site are Evans Ave, Innes Ave, and Crisp Rd. These access roads are located in Census Block Groups with concentrations of minority and low-income populations. *Therefore, these impacts would have disproportionate effects on minority and low-income populations. Development of a construction access route plan that avoids residential areas to the extent feasible could reduce but would not necessarily avoid these disproportionate effects. Even with implementation of this plan, disproportionate effects would remain because it is not known whether it would be feasible to reroute traffic to avoid all residential areas. Construction traffic and related control measures described below would minimize health and safety risks to children.*

For Alternatives 1-4, 1A and 2A, three individual components of Operation Increase in Traffic Volumes (Factor 2) would have significant and unavoidable transportation impacts. For Alternative 1, these impacts would also be cumulatively significant and unavoidable.

Intersection traffic impacts at nine intersections, mostly on Third St, but also Evans Ave, would be significant and unavoidable for several alternatives. With mitigation, two other intersections would not have significant impacts. Refer to Table 4.1.10-1 for a list of adversely affected intersections. Given that these intersections are located in or adjacent to areas with concentrations of minority and low-income populations, and the fact that local residents may use these facilities multiple times in a given day, unlike the typical patterns of non-residents, *significant traffic impacts related to intersections would comprise disproportionate effects on these populations.*

Traffic impacts could affect environmental justice populations during construction, which would be temporary, and during operations, with project-related traffic congestion at up to nine intersections in the community and on-ramp congestion at six locations. However, it is not clear that these impacts would correlate with adverse safety effects. In addition, the project would not be the sole contributor to the congestion and consequent effects.

- Safety risks to children from intersection and other traffic-related impacts are addressed below. Schools in the vicinity of the project are shown in Figure 3.11.3-2. Proposed roadway and transit improvements and bicycle and pedestrian circulation plans are illustrated in Figures 4.1.1-4 through 4.1.1-7. Proposed improvements, for example, include new signalization and new and enhanced sidewalks on Palou Ave near an existing elementary school. Figure 4.1.1-2 identifies future 2030 baseline weekday A.M. and P.M. peak hour traffic volumes, including projected

project traffic. Two intersections at Evans Ave and Jennings St and Palou Ave and Third St illustrate traffic in the vicinity of two elementary schools.

Overall, traffic management plans and traffic improvements related to the project would minimize the opportunities for conflicts between traffic and children within the community. (Refer also to Section 4.2.1.2.2, Toxic Air Contaminants, where the Health Risk Assessment analytic method is described, including that schools and school children were included as sensitive receptors.) Construction activities may require temporary closures of one or more traffic lanes and sidewalks, causing temporary disruption to pedestrian and bicycle circulation. However, temporary pedestrian walkways are required for locations with sidewalk closures to ensure that safe pedestrian circulation is continuously maintained and, therefore, impacts to pedestrian circulation would *not be significant*. Construction impacts on transportation would be significant, but temporary. Transportation **Mitigation 1** requires development of a Construction Transportation Management Plan, which must be approved by the city prior to initiation of any construction activity. Construction TMPs typically include measures to address safety at adjacent or nearby schools, such as flaggers or equivalent traffic control measures to reduce conflicts between pedestrians, bicycles, and vehicles, limit the location of staging areas on public roads, and require use of warning and detour signs. The Construction Transportation Management Plan would set forth specific truck routing, lane and sidewalk closures, traffic management procedures, and appropriate temporary facilities, including pedestrian walkways, to ensure safe and efficient movement of people in the project area during construction phases.

Once development is complete, the roadways leading to and around the site are designed to accommodate all users, including heavy vehicles, pedestrians, bicycles, transit, and private autos. In addition, Transportation **Mitigation 2** requires a Transportation Demand Management Plan to reduce the project's contribution to peak traffic and the associated potential for adverse safety impacts. *Thus, the construction and operation of the project would not result in safety hazards to children.*

In the densely populated and developed City of San Francisco, with residential uses interspersed with other uses in most areas, it is not possible for trucks to reach the project area without traversing some residences, but trucks would avoid residential areas to the extent it is possible to do so and still exit and enter the project area. (Existing residential land use in the project vicinity is shown in Figure 3.4.3-3.) Construction truck routes are typically identified as part of the Construction TMP that requires approval by the city.

- Freeway ramp impacts for six ramps on US-101 and I-280 would be significant and unavoidable for the six alternatives mentioned above. Given that these ramps are located in or adjacent to areas with concentrations of minority and low-income populations, and the fact that local residents may use these facilities multiple times in a given day, unlike the typical patterns of non-residents, *significant traffic impacts related to ramps would comprise disproportionate effects on these populations. Freeway ramp traffic impacts would not pose environmental health and safety risks to children.* Traffic impacts for stadium football games would be significant and unavoidable (project-level only) with **Mitigation 7**, develop and maintain a stadium event transportation management plan (Stadium TMP). Given that access routes to the stadium would be adjacent to areas with concentrations of minority and low-income populations, and the fact that local residents may use these facilities multiple times in a given day, unlike the typical patterns of non-residents, *significant traffic impacts related to stadium football games would comprise disproportionate effects on these populations. Traffic impacts for stadium football games would not pose environmental health and safety risks to children.*

Transit impacts (Factor 3), specifically for transit delays, for Alternatives 1-4, 1A and 2A would be significant and unavoidable with **Mitigation 5**, maintain the proposed headways for specific transit lines and **Mitigation 6**, purchase of additional transit vehicles. This impact would also be significant and unavoidable for stadium football games (project-level only) with **Mitigation 8**, increase frequency of regularly scheduled Muni routes serving the stadium area and for stadium secondary events (project-level only) with **Mitigation 10**, increase frequency of regularly scheduled Muni routes serving the stadium area prior to secondary events. For Alternative 1, these impacts would also be cumulatively significant and unavoidable. *Because low-income individuals typically comprise a large share of transit ridership, project-level and cumulative transit impacts would fall disproportionately on low-income populations. Transit impacts would not pose environmental health and safety risks to children.*

All other transportation impacts would not be significant either with or without mitigation and would therefore not result in disproportionate effects on minority and low-income populations.

6.5.2.2 Air Quality

There would be significant unavoidable project-level and cumulative impacts to air quality from construction of the proposed action and the other alternatives (except for the No Action Alternative) because daily NO_x emissions would exceed BAAQMD daily emission significance thresholds (Factor 1). Air quality impacts associated with proposed construction activities would occur from 1) combustive emissions due to the use of fossil fuel-fired construction equipment and on-road trucks and 2) fugitive dust and particulate matter ($PM_{10}/PM_{2.5}$) emissions from earth-moving activities, the use of equipment on bare soils, and demolition of structures. No mitigation measures are considered to be feasible; however standard control measures would be incorporated into contractor construction specifications. *Because the impact relates to a conflict with a standard based on a mass-based threshold and is not associated with a specific location or dependent on the presence of sensitive receptors or uses, exceedances due to daily construction emissions (Factor 1) would not constitute a disproportionate effect on minority or low-income populations.*

Operation of the proposed action and other alternatives except the No Action Alternative would create significant and unavoidable project-level and cumulative air quality impacts onsite, as emissions of ROG, NO_x, PM_{10} and $PM_{2.5}$ would exceed the BAAQMD daily emission significance thresholds (Factor 1). Air quality impacts associated with proposed operations would occur from 1) combustive emissions due to the use of fossil fuel-fired construction equipment and on-road trucks and 2) particulate matter ($PM_{10}/PM_{2.5}$) emissions from heavy duty vehicles. Although no feasible mitigation is available at this time to reduce this impact, the proposed design of a dense development with mixed land uses would facilitate pedestrian, bicycle, and transit travel and therefore would minimize motor vehicle trips and energy usage in buildings. *Because the impact relates to a conflict with a standard based on a mass-based threshold and is not associated with a specific location or dependent on the presence of sensitive receptors or uses, exceedances due to daily operational emissions (Factor 1) would not constitute a disproportionate effect on minority or low-income populations.*

For all alternatives, health impacts associated with air emissions would not be significant and would not result in disproportionate effects on minority and low-income populations. Because of public concerns and because human health is an important component of environmental justice, health impacts are discussed below.

Human Health Risk Assessments (HHRAs) were conducted to evaluate the human health effects from proposed construction and operational emissions of TACs and the effects of concentrations of $PM_{2.5}$ from vehicular emissions (see Section 4.2, Air Quality and GHG). The analysis relied on the HRA and modeling analyses from the EIR (SFRA 2010). Cancer risks and non-cancer effects were evaluated for

off-site receptors within the project vicinity, including residents (child and adult), workers, and other sensitive receptors (e.g., schoolchildren). Schools and hospitals within a 1-m (1.6 km) radius of the proposed project were considered as sensitive receptors. In addition to the offsite receptors, the residents at the Alice Griffith Housing area were considered as onsite receptors in the HRA analysis. Based on the results of the exposure evaluation and air dispersion modeling, the HRA determined that health impacts related to projected emissions of TACs from proposed alternatives would not be significant for construction or operations. The Health Risk Assessment is summarized in Air Quality Sections 4.2.2.1.1 and 4.2.2.2.1, Criteria Pollutants. The Health Risk Assessment for this project takes into consideration locations of schools and health impacts to school-age children from toxic air contaminants.

The maximum excess lifetime cancer risk for offsite receptors produced by Alternative 1 construction activities would not exceed 3.81 per million and would be less than the cancer risk significance threshold of 10 per million. Note that Alternative 1 would have the highest construction emissions of any of the alternatives due to stadium construction.

The HHRA determined that the maximum non-cancer chronic and acute HIs produced by DPM emissions and chemicals bound to airborne dust would be 0.01 and 0.03, respectively. These impacts represent the maximum levels of non-cancer effects that would occur at any offsite receptor during proposed construction activities. These impacts would occur at different locations. Therefore, the maximum public non-cancer effects produced by Alternative 1 construction activities would not exceed the combined impacts of these two pollutants, or an HI of 0.04, and would be less than the HI significance threshold of 1.0.

Even though the Health Risk Assessment found that impacts from air pollutants would not be significant, short-term exposure can nevertheless have health impacts (e.g., cause acute irritation of the eyes, throat, and bronchial region, neurological symptoms such as lightheadedness and nausea, and respiratory symptoms, such as a cough). In addition, children may be particularly sensitive to impacts from diesel exhaust. The Health Risk Assessment described in the air quality impact analysis and in DEIR Appendix H3 provides additional detail. The concentration of $PM_{2.5}$ from estimated vehicular emissions was characterized by developing exposure point concentrations at residential receptors surrounding the thoroughfares and roadways evaluated: Third St; Innes Ave/Hunters Point Blvd/Evans Ave; Palou Ave; Gilman Ave/Paul Ave; and Harney Way. Those thoroughfares were identified in the traffic report as primary or secondary roads that connect the project site and major arterials of US-101. In addition, Innes Ave/Hunters Point Blvd/Evans Ave, and Harney Way were selected because they were identified as streets with significant truck traffic and thus are expected to experience more $PM_{2.5}$ emissions compared to other roads. Furthermore, Palou Ave and Gilman Ave/Paul Ave were selected since there are residences in the vicinity of these roads where individuals may be exposed to $PM_{2.5}$ emissions. The results of the HRA analysis determined that vehicular emissions would not expose residential receptors along roadways in proximity to the project site to annual $PM_{2.5}$ concentrations in excess of DPH's 0.2 $\mu g/m^3$ threshold (SFRA 2010). As a result, health impacts from estimated traffic would *not be significant*.

All other air quality impacts would not be significant either with or without mitigation and, therefore, would not result in disproportionate effects on minority and low-income populations or adverse impacts to children.

As described below, the Project's Community Benefits Plan (CBP) would be used to help BVHP residents have additional access to health services. The project's CBP, which is Exhibit G to the Disposition and Development Agreement (DDA Phase 2) (SFRA 2011) between the Agency (SFRA) and the developer (or the future property owner), provides that the developer contribute $2,250,000 which would be used for predevelopment and construction costs for an expansion of the Southeast Health Center

(SEHC) in the Bayview neighborhood. These project contributions would help local residents to have more comprehensive access to health services at an expanded SEHC facility. The current CBP can be found in Appendix O of this SEIS (DDA Phase 2) (SFRA 2011).

The SEHC is a full-service health clinic within the DPH's Community Health Network. SEHC focuses on family practice, and also provides dental and mental health services for patients and clients of all ages. The staff at SEHC includes those proficient in most languages spoken in the neighborhoods it serves. Special projects are offered to meet the special needs of the population SEHC serves. Because Bayview residents have poorer health outcomes than San Francisco residents as a whole, expansion of the city's full-service health facilities will help meet community health needs.

To the extent that these funds are not needed for the SEHC expansion, the CBP provides that the developer contribute any remaining funds for the development of a health center focused on the health and well being of children, youth, and their families ("Center for Youth Wellness"). The Center for Youth Wellness would be designed to serve the health and wellness needs of the existing and future residents of the BVHP area and would be developed and implemented in conjunction with the San Francisco District Attorney's Office, the DPH, and others with expertise in the field.

The DDA CBP also provides that by the time the 5,250th unit is developed, unless the City and County of San Francisco determines that additional time for the planning for the expansion of the SEHC or the Center for Youth Wellness is needed, the developer would contribute any remaining funds to the SFRA's CBP. These funds would be used for programming related to the health and wellness of residents in the project site and in the BVHP community, including respiratory illness prevention and treatment.

In addition, as set forth in the DDA CBP, one-half of one percent from the sale of each market rate home would be deposited into a Community Benefits Fund which will be reinvested in the project site and the BVHP area to benefit low- and moderate-income families; eliminate blight; and/or meet other community development needs of the BVHP area including those related to social services, affordable housing, education, the arts, public safety, assistance for senior citizens and other community services. Such reinvestment would be made by the City and County of San Francisco following consultation as applicable with the Shipyard CAC and the Bayview Hunters Point Project Area Committee ("PAC") would be subject to approval by the Agency Commission as a part of each of its community benefits budgets. Until such time as the BVHP Representative Entity, which is the quasi-public entity formed under the Shipyard Phase 1 DDA to analyze community needs and make recommendations to the Agency Commission on the use of the Community Benefits Fund, is formed and independently operating, expenditures from the Community Benefits Fund would be determined by the Agency Director following consultation with the CAC and the PAC as applicable.

Collectively, the proposed action's many community benefit components, which include the contributions for community health and wellness, have been designed to enhance, strengthen, and target the needs of the BVHP community that exists adjacent to the project site.

6.5.2.3 Noise

The alternatives would produce several significant and unavoidable project-level and, unless noted, cumulative, noise and vibration impacts, as listed below. Those impacts are further evaluated to determine if they would constitute disproportionate effects on minority and low-income residents.

Construction activities would temporarily result in exposure of persons to excessive vibration levels within approximately 100 ft (30 m) of vibration producing activities; impacts to onsite vibration-sensitive receptors would constitute significant and unavoidable project-level impacts (Factor 2). Because

vibration would be temporary and localized, the proposed action would not make a significant contribution to cumulative vibration impacts. Residences would be constructed within 50 ft (15 m) of locations where high rise construction would later occur. Pile driving necessary for high rise construction would cause vibration to temporarily exceed standards in nearby residences. The vibration levels would only occur for the duration of the specified activity and would only impact receptors located within 100 ft (30 m) of the vibration producing activity. Once the vibration producing activities were completed, the affected receptors would no longer be impacted. Additionally, construction activities would only occur during the hours of 7:00 A.M. to 8:00 P.M. as required by Sections 2907 and 2908 of the Noise Ordinance. Alternatives 2 and 3 do not include the stadium, but do include the two high rise buildings, which would require pile driving. Therefore, while there would be no pile driving impacts for Alternatives 2 and 3 related to stadium construction, there would still be significant and unavoidable temporary vibration impacts associated with pile driving for construction of the high rise buildings. Alternative 4 and the No Action Alternative do not involve either stadium or high rise construction and would, therefore, not impose significant vibration impacts during construction.

Implementation of **Mitigation 1** would reduce vibration impacts by requiring that vibration-producing equipment be located as far away from sensitive receptors as practicable. **Mitigation 2** would require predrilled holes and alternate methods for driving piles. **Mitigation 3** would employ pile-driving techniques and muffling devices that would reduce noise and vibration levels. Implementation of **Mitigation 3** would require that buildings within 50 ft (15 m) of pile driving activities be monitored to ensure that ground borne vibration would not result in damage to structures. However, even with implementation of these mitigation measures pile driving activities would cause a significant impact. In the case of the No Action Alternative, pile driving would not be necessary. Therefore, the significant and unavoidable vibration impacts of pile driving would not occur with the No Action Alternative.

Residents of the existing Hunters Point neighborhood would not be exposed to significant vibration impacts because these impacts would be located onsite. Although onsite residences built prior to and within 100 ft (30 m) of proposed high rise construction would be temporarily exposed to significant vibration impacts, assuming that these homes would represent a mix of rent levels and housing values, vibration impacts are not expected to disproportionately fall on minority or low-income populations. *Therefore, alternatives that would produce significant unavoidable construction vibration impacts would not result in disproportionate impacts on minority and low-income populations.*

Construction activities associated with the proposed action would result in substantial temporary or periodic increases to ambient noise levels and would produce significant and unavoidable temporary impacts with implementation of mitigation measures (Factor 3). Impacts would be the same for Alternatives 1 through 4, 1A and 2A, as they all involve similar intensities of construction, although the duration of construction for Alternative 4 would be somewhat less than for the proposed action and Alternatives 1A, 2, 2A, and 3. **Mitigations 1**, **2**, **and 3** have been identified to minimize or reduce construction related noise levels to the extent feasible. However, the impact of construction noise is significant and unavoidable and would constitute a cumulative impact if other projects occurred simultaneously.

Temporary construction noise impacts would primarily affect areas within the project site or nearby non-residential areas off-site. Assuming that onsite residents exposed to noise impacts represent a mix of income levels, *significant unavoidable construction noise impacts would not result in disproportionate impacts on minority and low-income populations.*

Operation of the proposed action would generate increased local traffic volumes that could cause a substantial permanent increase in ambient noise levels in existing residential areas along the major project site access routes, causing a significant and unavoidable impact (Factor 6). Traffic noise impacts would

be similar for the other alternatives except the No Action Alternative. **Mitigation 4**, consideration of use of noise barriers in site-planning for outdoor residential activities, and **Mitigation 5**, sound attenuation features in new residences and implementation of related reporting requirements, may have limited applicability to existing structures. Table 4.3.2-2 presents Modeled Traffic Noise (dBA Ldn) along Main Area Roadways and identifies the changes in future noise levels along the study area roadway segments that have residential uses (and, therefore, are sensitive receptors). Figure 3.1.3-2 identifies roadways in the area. Ambient noise thresholds for increases in project-related traffic are based upon FTA criteria. Using these criteria, as baseline ambient noise levels increase, smaller and smaller noise increments are allowed to limit increases in community annoyance (e.g., in residential areas with a baseline ambient noise level of 50 dBA Ldn, a 5 dBA increase in noise levels would be acceptable, while at 70 dBA Ldn, only a 1 dBA increase would be allowed). Ambient noise increments associated with project-generated traffic would exceed thresholds at three to five intersections depending on the alternative, thereby triggering significant and unavoidable impacts. Nevertheless, while the noise increment would be exceeded, ambient noise would be below 70 dBA Ldn which is typical of an urban environment.

Based on demographic data illustrated in Figure 5.5-1, Minority and Low-Income Population Concentrations for Census Block Groups, these roadway segments (Evans Blvd, Palou Ave, and Innes Ave) are located in areas with concentrations of minority or both minority and low-income populations. *Therefore permanent increases in ambient noise levels from traffic would result in disproportionate effects on minority and low-income populations. No additional mitigations are feasible.*

Noise impacts from football games and concerts (Factor 7) on existing offsite residences would be significant and unavoidable for Alternatives 1 and 1A and for the two alternatives that include a stadium (project-level only), due to the limited feasibility and practicality of proposed **Mitigation 6**, structural acoustical mitigations for existing residences. While retrofitting existing homes could potentially reduce indoor noise levels to 45 dBA or below, it is not known at this time whether and to what extent such retrofits would be practical or accepted by residents, therefore, impacts on existing residences of noise from games and events is considered significant and unavoidable.

These offsite residences are located in areas with high percentages of minority and low-income populations and therefore, significant unavoidable stadium noise impacts would result in disproportionate impacts on minority and low-income populations.

All other noise and vibration impacts would not be significant either with or without mitigation and therefore would not result in disproportionate effects on minority and low-income populations.

6.5.2.4 Land Use and Recreation

Section 4.4, Land Use and Recreation, addresses land use compatibility, consistency with land use plans and policies, and recreation use. Land use and recreation impacts would not be significant and no mitigations are proposed. *Land use and recreation impacts would not result in disproportionate effects on minority and low-income populations.*

6.5.2.5 Visual Resources and Aesthetics

Impacts on visual resources and aesthetics from all alternatives would not be significant and no mitigations are proposed (see Section 4.5, Visual Resources and Aesthetics). There would be no cumulative impacts from any of the alternatives. *Visual resources and aesthetics impacts would not result in disproportionate effects on minority and low-income populations.*

6.5.2.6 Socioeconomics

The proposed action and alternatives would not create significant project-level or cumulative socioeconomic impacts related to population and housing growth (Factor 1), displacement of housing and population (Factor 2), or displacement of businesses (Factor 3) and no mitigations are proposed. Although these impacts are not significant, they are discussed below because of the importance of socioeconomic factors to the analysis of environmental justice and to address community concerns. The *HPS Redevelopment Plan* has the potential to lead to a general increase in neighborhood rent levels, or in neighborhood property values for homeowners (and therefore property taxes which existing residents – especially those on low or fixed incomes – may be unable to pay). The city's commitment to construction of affordable housing and below-market-rate units, as well as implementation of the *Community Benefits Plan*, would help offset socioeconomic impacts. The developer would contribute to the *Community First Housing Plan* and Workforce Development Fund. In addition, a Community Benefits Fund would be established that would help meet community development and other needs of the Bayview Hunters Point neighborhood. In addition, other elements of the *Community Benefits Plan* would support education, community health and wellness, and community facilities. *Socioeconomic impacts would not be significant and would not result in disproportionate effects on minority and low-income populations*.

By 2030, the proposed action would create 7,255 jobs in the operations phase; Alternative 2 would create 13,159 operations jobs, Alternative 3 would create 6,956 jobs; Alternative 4 would create 4,833 jobs and Alternative 5, the No Action Alternative, would create no additional jobs. Jobs for Alternatives 1A and 2A would be similar to Alternatives 1 and 2. The increased availability of jobs in the community would contribute to the revitalization of the neighborhood. Anticipated growth would not exceed the city's population projections. *The creation of jobs could benefit low-income residents of the adjacent neighborhood, especially if job training and job creation programs and policies target these neighborhood residents, as would be the case with the Workforce Development Fund included in the Community Benefits Agreement.*

6.5.2.7 Hazards and Hazardous Substances

During the public scoping period and subsequently, members of the public expressed strong concerns regarding potential health impacts to the community from cleanup activities and construction at contaminated sites. Remediation of the project site is ongoing due to the presence of chemicals and radioactive materials in various locations, and would continue to be implemented with or without the proposed action. No significant and unavoidable project-level or cumulative impacts relating to hazards would occur (see Section 4.7, Hazards and Hazardous Substances) and therefore, *no disproportionate health effects on minority and low-income populations would occur.*

The information provided below summarizes impacts that would not be significant, none of which would therefore result in disproportionate effects; this is provided in response to community concerns.

Implementation of the reuse alternatives would include environmental control measures as part of the project, for example, compliance with prepared environmental plans and Administrative Orders of Consent (AOC) and development and implementation of plans (i.e., Foundation Support Piles Installation Plan). The reuse alternatives would also comply with regulations requiring the following practices: air monitoring and engineering controls, a health and safety plan, a stormwater pollution prevention plan (SWPPP), covering stockpiles, site security, use of best truck routes, dust control measures, and decontaminating equipment leaving the site.

Adverse effects relating to hazards and hazardous substances associated with operation, such as routine maintenance, storage, transport, and disposal of hazardous materials, and exposure to hazardous substances via upset and accident conditions would not be significant.

The proposed action and alternatives do not propose any uses that would require the handling of acutely hazardous materials. In the event that previously unknown hazardous materials or contamination are discovered during construction, implementation of the environmental control measures, as well as adherence to applicable regulations, would reduce the likelihood of contaminants being conveyed to people or near shore and aquatic habitats and associated species. *Hazards and hazardous substances impacts would not result in disproportionate effects on minority and low-income populations.*

6.5.2.8 Geology and Soils

With respect to geology and soils, there would be no significant, unavoidable project-level or cumulative impacts associated with the proposed action or alternatives. *Geology and soils impacts would not result in disproportionate effects on minority and low-income populations.*

6.5.2.9 Water Resources

No significant and unavoidable project-level or cumulative impacts related to hydrology and water quality would occur as a result of Alternatives 1-4, 1A and 2A, as discussed in Section 4.9, Water Resources. Environmental control measures would be incorporated into the project that would address anticipated conditions, for example the potential for flooding. No disproportionate effects on minority and low-income population would be associated with water resource impacts.

With regard to the No Action Alternative, the existing potential for flooding is addressed further. Portions of HPS are located within a special flood hazard zone (Zone A), as mapped on the preliminary flood insurance rate map. Considering the projected future sea level rise, structures located in the portions of HPS within Zone A may be susceptible to future flooding or inundation that could expose structures or people to risk of loss, injury, or death. This impact would be *potentially significant* if existing leases were renewed or extended under the No Action Alternative. In addition, because mitigation measures would not be applied, the impact would remain significant. The locations of potential hazards would be related to local topography and not result in disproportionate effects on minority or low-income populations. *Water resources impacts would not result in disproportionate effects on minority and low-income populations.*

6.5.2.10 Utilities

There would be no significant, unavoidable project-level or cumulative utilities impacts from the proposed action or alternatives. *Therefore, utilities impacts would not create disproportionate effects on minority and low-income populations.*

6.5.2.11 Public Services

With respect to public services, there would be no significant, unavoidable, project-level or cumulative impacts associated with the proposed action or alternatives (refer to Section 4.11, Public Services). *Public services impacts would not result in disproportionate effects on minority and low-income populations.*

6.5.2.12 Cultural and Paleontological Resources

Archaeological resources (Factor 2) and paleontological resources (Factor 3) impacts would not be significant, assuming implementation of proposed mitigations, as described below. Research indicates that archaeological resources (e.g., prehistoric sites, Chinese fishing camps, or maritime sites) may be found on the project site and that these resources could have important research value (Factor 2). Implementation of **Mitigation 1** archaeological testing, monitoring and mitigation program would reduce the significant adverse impact of construction activities for Alternative 1 and the other reuse alternatives so that it would not be significant. The contribution of the proposed action and other alternatives to potential cumulative impacts on cultural resources would not be significant.

Potential impacts to a unique paleontological resource/site by construction-related activities would be significant; however, with implementation of **Mitigation 2,** paleontological resources monitoring and mitigation program, impacts on paleontological resources from Alternative 1 would not be significant; cumulative impacts would also not be significant. Impacts to paleontological resources from the other reuse alternatives would be the same as for the proposed action. For the No Action Alternative, because no ground disturbance or demolition would occur, historical, archaeological, and paleontological resources would not be impacted. *Cultural and paleontological resources impacts would not result in disproportionate effects on minority and low-income populations.*

6.5.2.13 Biological Resources

There would be no significant, unavoidable project-level or cumulative impacts expected to biological resources from the proposed action or alternatives with mitigation. **Mitigation 1**, pre-construction surveys to reduce impacts to birds and bats, would reduce potential impacts to nesting birds and roosting bats (Factor 2) in abandoned buildings so that they would not be significant. **Mitigation 2**, wetlands mitigation, would mitigate permanent impacts to 0.17 ac (0.07 ha) of nontidal freshwater wetlands (Factor 3) from construction at the project site (i.e., not significant). **Mitigation 3**, seasonal restrictions on in-water work, would reduce potential impacts to essential fish habitat (Factor 2) such that they would not be significant. Because impacts to biological resources would not be significant with mitigation, and further, because human populations would not be adversely affected, *biological resources impacts would not result in disproportionate effects on minority and low-income populations.*

6.5.3 Conclusion

The project alternatives would not pose environmental health and safety risks to children or would otherwise minimize such effects through mitigation. The following impacts, except where noted as project-level only (therefore, not making a significant contribution to cumulative impacts), represent significant and unavoidable project-level and cumulative transportation and noise impacts that would result in disproportionate effects on minority and low-income populations. Mitiations are addressed above and in Section 4.1, Transportation, Traffic, and Circulation, and Section 4.3, Noise. No additional mitigations are recommended as part of the environmental justice analysis.

6.5.3.1 Transportation, Traffic, and Circulation

- Construction vehicle traffic and roadway impacts (Factor 1) for Alternatives 1-4, 1A and 2A.
- Operations increase in traffic volumes (Factor 2) for Alternatives 1-4, 1A and 2A, including intersection traffic impacts, freeway ramp impacts, and stadium football game traffic impacts (project-level only).

- Transit impacts (Factor 3), including transit delays, stadium football games (project-level only), and stadium secondary events (project-level only) for Alternatives 1-4, 1A and 2A.

6.5.3.2 Noise

- Exposure of persons to increased (operations) noise levels (Factor 6) Alternatives 1-4, 1A and 2A.
- Exposure of persons to excessive event noise levels (Factor 7) (project-level only) from Alternatives 1 and 1A.

All of the reuse alternatives would generate community benefits related to jobs, housing, and additional neighborhood amenities. By 2030, the proposed action would create 7,255 jobs in the operations phase; Alternative 2 would create 13,159 operations jobs, Alternative 3 would create 6,956 jobs; Alternative 4 would create 4,833 jobs. Alternative 1A would create a similar number of jobs to Alternative 1. Alternative 2A would create 8,214 jobs in the operations phase. The No Action Alternative would not create additional jobs. The increased availability of jobs in the community would contribute to the revitalization of the neighborhood. Anticipated growth would not exceed the city's population projections. The creation of jobs could benefit low-income residents of the adjacent neighborhood, especially if job training and job creation programs and policies target these neighborhood residents, *as would be the case with the Workforce Development Fund included in the Community Benefits Agreement.*

A *Fiscal and Economic Impact Analysis of Candlestick Point-Hunters Point Shipyard Phase II Development Project* was prepared by Economic & Planning Systems, Inc. for Lennar Urban, the project developer (Economic & Planning Systems 2010). The analysis combined both the Candlestick Point and HPS developments. It concluded that fiscal impacts on the city would be favorable because revenues generated by the project would substantially exceed the costs of providing services to the development in all future years. While the HPS contribution was not identified in the report, it is reasonable to conclude that the HPS development on its own would have similar overall favorable fiscal and economic impacts. Note also that federal properties are exempt from local taxes. As such, the conversion of federal property to taxable property within the city's jurisdiction would result in an increase in property tax revenues. Further, the addition of businesses and retail sources of sales tax revenues would also enhance local jurisdiction revenues. This conclusion would apply to all alternatives except the No Action Alternative, for which no increased economic activity would occur. However, because the analyses for Candlestick Point and HPS were combined, HPS-specific fiscal or economic impacts are not quantified. Because low-income populations rely to a greater extent on certain local government services (e.g., healthcare, transit), fiscal benefits created by the development alternatives would also provide specific indirect benefits to these populations because increased sources of revenue would be available to fund local government services.

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