CHAPTER 5
ALTERNATIVES

5.1 Introduction

Pursuant to State CEQA Guidelines, EIRs are required to "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives" (Section 15126.6(a)). This EIR "must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation" (Section 15126.6 (a)) The alternatives discussion is required even if these alternatives "would impede to some degree the attainment of the project objectives, or would be more costly" (Section 15126.6 (b)).

5.1.1 Summary of Project Objectives

The purpose and need for the Proposed Project and project objectives are set forth in *Chapter 2, Introduction*, of this EIR. The overall objective of the proposed CVBMP is to establish the Chula Vista Bayfront as an active, accessible, vibrant area, with attractions that draw people to and celebrate the waterfront experience, while protecting and enhancing environmental resources. Another important objective includes linking the Bayfront to the downtown Chula Vista Urban Core, and providing a network of trails and open space along the shoreline. Among other things, it is important that the approved plan establish the location and character of future commercial and residential development as well as public amenities that complement the setting and character of the Bayfront and nearby Chula Vista Urban Core. The approved plan must also create a circulation pattern and parking strategy to support development and enhance public access.

5.1.2 Summary of Proposed Project Impacts for Alternatives Comparison

Table 1-9 in the *Chapter 1*, *Executive Summary*, provides a summary of potential impacts from the Proposed Project for each of the issues addressed in this report, as well as the significance of each impact after mitigation. *Table 5.1-1* below displays the potential significant impacts of the Proposed Project after mitigation and provides a comparison of the Proposed Project's impacts prior to mitigation to each of the five alternatives' impacts prior to mitigation. *Table 5.1-1* identifies whether each of the alternatives would have an equal, greater, or lesser impact on the environment than the Proposed Project.

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TABLE 5.1-1
Comparison of Impacts between Proposed Project and Project Alternatives

Environmental Issue	Proposed Project Significance After Mitigation	No Project	Harbor Park	No Land Trade	Reduced Overall Density	Alternate L-Ditch Remediation
4.1 Land/Water Use Compatibility						
1. The Proposed Project would have a significant impact if it conflicts with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the General Plan, Specific Plan, local coastal program, master plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.	Less than significant	Greater	Equal	Equal	Equal	Equal
2. The Proposed Project would have a significant impact if it conflicts with any applicable habitat conservation plan or natural community conservation plan.	Less than significant	Less	Equal	Greater	Equal	Equal
3. The Proposed Project would have a significant impact if it creates a substantial or extreme land/water use incompatibility with adjacent or nearby existing and proposed land uses, resulting in significant incompatibility or nuisance impacts.	Less than significant	Equal	Equal	Greater	Equal	Equal
4. The Proposed Project would have a significant impact if it is inconsistent or conflicts with an adopted PMP water use designation where substantial indirect or secondary environmental impacts would occur.	Less than significant	Equal	Equal	Equal	Equal	Equal
4.2 Traffic and Circulation						
1. The Proposed Project would have a significant impact on traffic circulation if it substantially increases hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)	Less than significant	Equal	Equal	Equal	Equal	Equal
2. The Proposed Project would have a significant impact on traffic circulation if it conflicts with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)	Less than significant	Equal	Equal	Equal	Equal	Equal
3. The Proposed Project would have a significant impact if changes to the land use and the circulation plans would result in the following: For non-Chula Vista Urban Core circulation element roadways (Expressway, Prime Arterial, Major Street, Town Center Arterial, Class I Collector): a) A roadway segment that currently operates at LOS C or better and with the proposed changes would operate at LOS D or worse at General Plan build-out. b) A roadway segment that currently operates at LOS D or E and with the proposed changes would operate at LOS E or F at General Plan build-out (respectively), or which operates at LOS D, E, or F and would worsen by 5 percent or more at General Plan build-out. For Chula Vista Urban Core Circulation Element roadways (Gateway Street, Urban Arterial, Commercial Boulevard, and Downtown Promenade): a) A roadway segment that currently operates at LOS D or better and with the proposed changes would operate at LOS E or F at General Plan build-out. b) A roadway segment that currently operates at LOS F and would worsen by 5 percent or more at General Plan build-out.	Significant and unmitigable	Greater	Greater	Greater	Less	Equal
4. The Proposed Project would have a significant impact if changes to the land use and circulation plans would affect signalized and unsignalized intersections as follows: a) An intersection that currently operates at LOS D or better and with proposed changes would operate at LOS E or worse at General Plan build-out. b) An intersection that currently operates at LOS E or F and the project trips generated comprise 5 percent or more of the entering volume. Entering volumes are the total approach volumes entering an intersection. c) A cumulative impact would occur if the operations at intersection are at LOS E or F only.	Less than significant	Greater	Greater	Equal	Less	Equal
4.3 Parking						
1. The Proposed Project would have a significant impact if it causes the parking supply to be less than the generated demand or if it exacerbates an existing parking shortage.	Less than significant	Equal	Equal	Equal	Less	Equal
2. The Proposed Project would have a significant impact if it results in parking shortfalls during major events within the Chula Vista Bayfront area.	Less than significant	Equal	Equal	Equal	Less	Equal
3. The Proposed Project would have a significant impact if it removes parking lots designated for public use that are heavily utilized and not replaced.	Less than significant	Equal	Equal	Equal	Less	Equal
4.4 Aesthetics/Visual Quality						
1. *View Quality:* The Proposed Project would have a significant impact if it has a substantially adverse effect on a scenic vista, public view, or public resource (such as a symbol or landmark).	Significant and unmitigable	Less	Greater	Greater	Less	Equal
2. *Visual Quality:* The Proposed Project would have a significant impact if it substantially degrades the existing visual character or quality of the site and its surroundings.	Less than significant	Less	Equal	Greater	Less	Equal
3. *Light and Glare:* The Proposed Project would have a significant impact if it creates a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	Less than significant	Equal	Equal	Equal	Less	Equal
4. *Visual Character:* The Proposed Project would have a significant impact if it conflicts with urban design guidelines in adopted plans and policies.	Less than significant	Equal	Equal	Greater	Less	Equal

TABLE 5.1-1 (Cont.)

Environmental Issue	Proposed Project Significance After Mitigation	No Project	Harbor Park	No Land Trade	Reduced Overall Density	Alternate L-Ditch Remediation
4.5 Hydrology/Water Quality						
1. The Proposed Project would have a significant impact if it substantially depletes groundwater or interferes substantially with groundwater recharge.	Less than significant	Equal	Equal	Equal	Equal	Equal
2. The Proposed Project would have a significant impact if it alters an existing 100-year floodplain or would place structures within a 100-year flood hazard area which would impede or redirect flood flows.	Less than significant	Equal	Equal	Equal	Equal	Equal
3. The Proposed Project would have a significant impact if it exposes people or structures to a significant risk of loss, injury, or death involving flooding, and/or exposes people or structures to inundation by seiche, tsunami, or mudflow.	Less than significant	Equal	Equal	Equal	Equal	Equal
4. The Proposed Project would have a significant impact if it substantially alters the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site.	Less than significant	Equal	Equal	Equal	Equal	Equal
5. The Proposed Project would have a significant impact if it degrades water quality or would violate any water quality standards or waste discharge requirements, resulting from a substantial increase in the rate or amount of polluted surface runoff.	Less than significant	Equal	Equal	Equal	Less	Equal
6. The Proposed Project would have a significant impact if it creates or contributes runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	Less than significant	Equal	Equal	Equal	Less	Equal
7. The Proposed Project would have a significant impact if it results in pollution or contamination that may have an impact on human health and the environment, including the aquatic habitat, or impacts on biological communities.	Less than significant	Equal	Equal	Equal	Equal	Equal
8. The Proposed Project would have a significant impact if it results in substantial erosion and subsequent sedimentation of water bodies.	Less than significant	Equal	Equal	Equal	Equal	Equal
4.6 Air Quality						
1. The Proposed Project would have a significant impact if it conflicts with or obstructs implementation of the applicable air quality plan (e.g., RAQS).	Less than significant	Greater	Equal	Equal	Less	Equal
2. The Proposed Project would have a significant impact if it violates any air quality standard or contributes substantially to an existing or projected air quality violation.	Less than significant	Greater	Equal	Equal	Less	Equal
3. The Proposed Project would have a significant impact if it results in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).	Significant and unmitigable	Greater	Equal	Equal	Less	Equal
4. The Proposed Project would have a significant impact if it exposes sensitive receptors to substantial pollutant concentrations.	Significant and unmitigable	Greater	Equal	Greater	Less	Equal
5. The Proposed Project would have a significant impact if locates residential housing within 1,000 feet of a plant or any other toxic air emitting facility.	Less than significant	Less	Equal	Equal	Equal	Equal
6. The Proposed Project would have a significant impact if it creates objectionable odors affecting a substantial number of people.	Less than significant	Equal	Equal	Equal	Equal	Equal
7. The Proposed Project would have a significant impact if conflicts with or obstructs goals or strategies of the California Global Warming Solutions Act of 2006 (AB 32) or related Executive Orders.	Less than significant	Greater	Equal	Equal	Equal	Equal
8. The Proposed Project would have a significant impact if it results in substantially increased exposure of the project from the potential adverse effects of global warming identified in the California Global Warming Solutions Act of 2006 (AB 32).	Less than significant	Greater	Equal	Equal	Equal	Equal
4.7 Noise						
1. The Proposed Project would have a significant impact if it exposes persons to or generates noise levels in excess of standards established in the City of Chula Vista General Plan or noise ordinance, or applicable standards of other agencies.	Less than significant	Greater	Equal	Equal	Less	Equal
2. The Proposed Project would have a significant impact if it exposes persons to or generates excessive groundborne or waterborne vibrations or noise levels.	Less than significant	Equal	Equal	Equal	Less	Equal
3. The Proposed Project would have a significant impact if it results in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.	Less than significant	Greater	Equal	Equal	Less	Equal
4. The Proposed Project would have a significant impact if it results in substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	Less than significant	Equal	Greater	Equal	Less	Equal
4.8 Terrestrial Biological Resources						
1. The Proposed Project would have a significant impact if it has a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFG or USFWS.	Less than significant	Greater	Equal	Greater	Equal	Equal
2. The Proposed Project would have a significant impact if it has a substantial adverse effect on federally or state protected wetlands as defined by Sections 401 and 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.), and Section 1600 of the CDFG Code through direct removal, filling, hydrologic interruption, or other means.	Less than significant	Greater	Equal	Equal	Equal	Equal

TABLE 5.1-1 (Cont.)

Environmental Issue	Proposed Project Significance After Mitigation	No Project	Harbor Park	No Land Trade	Reduced Overall Density	Alternate L-Ditch Remediation
3. The Proposed Project would have a significant impact if it interferes substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedes the use of native wildlife nursery sites.	Less than significant	Greater	Equal	Equal	Equal	Equal
4. The Proposed Project would have a significant impact if it conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	Less than significant	Greater	Equal	Equal	Equal	Equal
5. The Proposed Project would have a significant impact if it conflicts with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan.	Less than significant	Greater	Greater	Equal	Equal	Equal
4.9 Marine Biological Resources						
1. The Proposed Project would have a significant impact if it has a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG or USFWS.	Less than significant	Greater	Equal	Equal	Equal	Equal
2. The Proposed Project would have a significant impact if it interferes substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedes the use of native wildlife nursery sites.	Less than significant	Greater	Equal	Equal	Equal	Equal
3. The Proposed Project would have a significant impact if it has a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFG or USFWS.	Less than significant	Greater	Equal	Equal	Equal	Equal
4. The Proposed Project would have a significant impact if it has a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrologic interruption, or other means.	Less than significant	Equal	Equal	Equal	Equal	Equal
5. The Proposed Project would have a significant impact if it conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	Less than significant	Greater	Equal	Equal	Equal	Equal
6. The Proposed Project would have a significant impact if it conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.	Less than significant	Greater	Equal	Equal	Equal	Equal
4.10 Cultural Resources						
1. The Proposed Project would have a significant impact if it causes a substantial adverse change in the significance of a historical or archaeological resource as defined in CEQA Guidelines Section 15064.5, including resources that are eligible for the CRHR and the National Register of Historic Places and resources that are locally designated as historically significant, or the City of Chula Vista finds the resource historically significant based on substantial evidence.	Less than significant	Equal	Equal	Equal	Equal	Equal
2. The Proposed Project would have a significant impact if it disturbs any human remains, including those interred outside of formal cemeteries.	Less than significant	Equal	Greater	Equal	Equal	Equal
4.11 Paleontological Resources						
1. The Proposed Project would have a significant impact if it directly or indirectly destroys a unique paleontological resource or site or unique geologic feature.	Less than significant	Equal	Equal	Equal	Equal	Equal
4.12 Hazards and Hazardous Materials/Public Safety						
1. The Proposed Project would have a significant impact if it creates a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	Less than significant	Equal	Equal	Equal	Equal	Equal
2. The Proposed Project would have a significant impact if it creates a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	Less than significant	Equal	Equal	Equal	Equal	Equal
3. The Proposed Project would have a significant impact if it emits hazardous emissions or handles hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.	Less than significant	Equal	Equal	Equal	Equal	Equal
4. The Proposed Project would have a significant impact if it is located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, a significant hazard to the public or the environment would be created.	Less than significant	Equal	Equal	Equal	Equal	Equal
5. The Proposed Project would have a significant impact if it is located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport and would result in a safety hazard for people residing or working in the project area.	Less than significant	Equal	Equal	Equal	Equal	Equal
6. The Proposed Project would have a significant impact if it impairs implementation of or physically interferes with an adopted emergency response plan or emergency evacuation plan.	Less than significant	Equal	Equal	Equal	Equal	Equal
4.13 Public Services						
Fire Protection 1. The Proposed Project would have a significant impact if it reduces the ability to respond to calls throughout the City within the City's threshold standard to respond to calls within 7 minutes in 80 percent of the cases.	Less than significant	Greater	Greater	Greater	Greater	Equal
2. The Proposed Project would have a significant impact if it results in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause	Less than significant	Greater	Greater	Greater	Greater	Equal

TABLE 5.1-1 (Cont.)

Environmental Issue	Proposed Project Significance After Mitigation	No Project	Harbor Park	No Land Trade	Reduced Overall Density	Alternate L-Ditch Remediation
significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the fire protection and emergency services.						
Police Protection 1. The Proposed Project would have a significant impact on police protection services if it: • Reduces the ability to respond to calls within the City's threshold standard for Priority One emergency calls within 7 minutes in 81 percent of the cases and maintain an average response time to all Priority One calls of 5.5 minutes or less. • Reduces the ability to respond to calls within the City's threshold standard for Priority Two urgent calls, within 7 minutes in 57 percent of cases, and maintain an average response time to all Priority Two calls of 7.5 minutes or less.	Less than significant	Equal	Equal	Equal	Less	Equal
2. The Proposed Project would have a significant impact if it results in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities and/or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services.	Less than significant	Equal	Equal	Equal	Less	Equal
Parks and Recreation 1. The Proposed Project would have a significant impact if it results in the inability for the City to provide an adequate level of service in accordance with the Chula Vista Municipal Code Chapter 17.10.040 Parklands and Public Facilities.	Less than significant	Less	Equal	Equal	Less	Equal
2. The Proposed Project would have a significant impact if it results in substantial adverse physical impacts associated with the provision of new or physically altered governmental or recreational facilities and/or the need for new, expanded, or physically altered governmental or recreational facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives for park services.	Less than significant	Less	Equal	Equal	Less	Equal
3. The Proposed Project would have a significant impact if it increases the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	Less than significant	—	—	—	—	—
Schools 1. The Proposed Project would have a significant impact if it the CVESD and SUHSD do not have the necessary school facilities to meet the needs of the students in new development areas in a timely manner.	Less than significant with mitigation	Less	Equal	Equal	Less	Equal
2. The Proposed Project would have a significant impact if it results in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities and/or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives for school services.	Less than significant	Less	Equal	Equal	Less	Equal
Library Service 1. The Proposed Project would have a significant impact if it exceeds the population ratio, which requires that 500 square feet (gross) of adequately equipped and staffed libraries be provided per 1,000 populations.	Significant and unmitigable	Less	Equal	Equal	Less	Equal
2. The Proposed Project would have a significant impact if it results in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities and/or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives for library services.	Less than significant	Less	Equal	Equal	Less	Equal
4.14 Public Utilities						
Water Supply and Water Availability 1. The Proposed Project would have a significant impact if sufficient water supplies are not available to serve the project from existing entitlements and resources, or results in the need for new or expanded entitlements.	Less than significant	Greater	Equal	Equal	Less	Equal
2. The Proposed Project would have a significant impact if the project requires or results in the construction of new water treatment facilities or expansion of existing facilities and services, the construction of which could cause significant environmental effects.	Less than significant	Greater	Equal	Equal	Less	Equal
3. The Proposed Project would have a significant impact if it the Proposed Project is inconsistent with the assumptions used in the SDCWA UWMP.	Less than significant	Equal	Equal	Equal	Equal	Equal
Sewer 1. The Proposed Project would have a significant impact if it results in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate planned capacity to serve projected demand in addition to the provider's existing commitments.	Less than significant	Equal	Greater	Equal	Less	Equal
2. The Proposed Project would have a significant impact if it requires or results in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	Less than significant	Equal	Equal	Equal	Less	Equal

TABLE 5.1-1 (Cont.)

Environmental Issue	Proposed Project Significance After Mitigation	No Project	Harbor Park	No Land Trade	Reduced Overall Density	Alternate L-Ditch Remediation
Solid Waste Management						
1. The Proposed Project would have a significant impact if the project was served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.	Less than significant	Equal	Equal	Equal	Less	Equal
2. The Proposed Project would have a significant impact if it does not comply with federal, state, and local regulations related to solid waste.	Less than significant	Equal	Equal	Equal	Less	Equal
4.15 Seismic/Geologic Hazards						
1. The Proposed Project would have a significant impact if the rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault, or strong seismic ground shaking occurred.	Less than significant	Equal	Equal	Equal	Equal	Equal
2. The Proposed Project would have a significant impact if seismic-related ground failure, including liquefaction, occurred, or if it is located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	Less than significant	Equal	Equal	Equal	Equal	Equal
3. The Proposed Project would have a significant impact if it is located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating a substantial risk to life or property.	Less than significant	Equal	Equal	Equal	Equal	Equal
4. The Proposed Project would have a significant impact if there is the potential for tsunamis.	Less than significant	Equal	Equal	Equal	Equal	Equal
4.16 Energy						
1. The Proposed Project would have a significant impact if it increases the demand for energy resources to exceed the City's available supply or causes a need for new and expanded facilities.	Less than significant	Equal	Equal	Greater	Less	Equal
4.17 Population and Housing						
1. The Proposed Project would have a significant impact if it induces substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).	Less than significant	Equal	Equal	Equal	Equal	Equal
2. The Proposed Project would have a significant impact if it displaces substantial numbers of existing housing or people, necessitating the construction of replacement housing elsewhere.	Less than significant	Equal	Equal	Equal	Less	Equal

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5.2 Selected Alternatives

This section discusses five alternatives for the proposed CVBMP, including the No Project Alternative. The Harbor Park Alternative and the No Land Trade Alternative, discussed below, are analyzed in greater detail than is normally required. This was done to fulfill the Port's long-standing commitment to the community groups and resource agencies who have participated in planning efforts. The list of project alternatives addressed in this section is shown below, followed by a more detailed discussion of each:

- No Project Alternative
- Harbor Park Alternative
- No Land Trade
- Reduced Overall Density Alternative
- Alternate L-Ditch Remediation Alternative.

5.3 No Project Alternative

For the No Project Alternative, no land trade would occur between the Port and the private developer, and therefore, no action by the SLC would be required. Lands held under private option in the Sweetwater District would remain in the City of Chula Vista's jurisdiction. No land use designation changes would occur and no amendment to the PMP or LCP would be approved. Public trust lands in the Harbor and Otay Districts would remain in the Port's jurisdiction.

Under this alternative, development is assumed to be in conformance with the adopted land use plans (LCP, which includes the LUP, and PMP/Chula Vista Bayfront Planning District 7: Precise Plan) and zoning designations. Coastal Commission action on development of privately held lands in the Sweetwater District would not be required, provided such development conforms to the adopted LCP, which includes the LUP. Coastal Commission action may be required for development of Port lands in accordance with the adopted plan.

For Port lands, the Precise Plan for Planning District 7 would be retained, expanded, or upgraded consistent with goals and policies as allowed by the plan. Permitted uses would include existing marine sales and service, commercial recreation, industrial business park and marine-related industrial, public recreation and conservation areas, and public facilities.

For public and private lands under the City's jurisdiction, including the Midbayfront property in the Sweetwater District, current adopted planning designations would apply (see *Figures 4.1-3* and *4.1-4*). In some cases, the amount and location of development would create impacts more severe than those of the Proposed Project.

The existing LCP Land Use Plan anticipates high-intensity development of the Sweetwater District, including development of up to 1,060 high-density residential units, 1,860 hotel rooms, 2,373,000 square feet of commercial use, and 75,000 square feet of cultural arts facilities. In addition, development in the City's jurisdiction within the Harbor and Otay Districts permits industrial development at a floor area ratio of 0.50 and commercial development at a floor area ratio of 0.25. Given the acreage presented in the adopted land use plan, this plan could result in about 5,700,000 square feet of industrial use.

The existing plan provides for a central resort district and park and recreation uses. Designated visitor and visitor/highway commercial, professional/administrative, public/quasi-public uses (including an existing railroad ROW), as well as research, limited industrial, general industrial, and open space/parks comprise remaining uses in the City's jurisdiction.

The F & G Street Marsh component of the Sweetwater Marsh NWR is one of three designated open space areas. Permitted building heights in the Sweetwater District would range from a maximum height of 229 feet for high-rise residential sites in the northeastern area to a maximum 30-foot height in the area generally adjacent to the Sweetwater Marsh NWR. Building heights in the Harbor and Otay Districts would be limited to 44 feet.

5.3.1 Land/Water Use Compatibility

Existing land uses and zoning would be retained, and development would proceed in accordance with the adopted plans for the applicable jurisdiction. For example, industrial uses would be developed in the Harbor and Otay Districts and commercial and residential uses in the Sweetwater District. Expansion of public parkland and open space would not increase to the extent anticipated for the Proposed Project. The No Project Alternative does not preclude long-term development of the project area consistent with the adopted land use plans.

Implementation of the No Project Alternative would ensure conformance to the adopted plans and zoning. The current General Plan, Specific Plan, LCP, and PMP would not be amended. Development in accordance with the adopted plans would not conflict with the MSCP, but, as with the Proposed Project, an HLIT permit would be required.

While development in accordance with adopted plans would avoid planning conflicts, selection of the No Project Alternative and future development of high-intensity residential, recreation, commercial/retail, and office uses in the Sweetwater District would be inconsistent with the long-term collaborative public process intended to reduce development intensity in the Sweetwater District due to the site's proximity to the Sweetwater Marsh NWR and Bay. These efforts have involved regional environmental groups and City residents as well as CDFG, USFWS, and other responsible agencies. Working together with Port and City planners, these organizations have helped to develop plans for an economically feasible development that is

environmentally sensitive yet capable of creating a vibrant, active urban waterfront with improved connectivity to the Chula Vista Urban Core.

5.3.2 Traffic/Circulation and Parking

In the near term, there would be no change to traffic/circulation and parking. Increased traffic would be expected as development proceeds consistently with the adopted land use plans. The traffic impacts for the currently adopted plans in the Bayfront Planning District were included in the analysis conducted for the General Plan Update. That plan identified significant impacts to roadways within the Bayfront District. It also identified roadways in the vicinity of the Bayfront to which traffic from the Bayfront would contribute.

The traffic analysis for the General Plan Update identified a significant traffic impact to the following roadways within the planning area. These roadways currently operate at LOS C or better and would operate at LOS D or worse with the build-out of the General Plan, which includes the current Bayfront land use plans (the No Project Alternative). In addition, I-5 between SR-54 and Main Street would operate at LOS F with this alternative.

- E Street between Marina Parkway and I-5
- H Street between Marina Parkway and I-5
- J Street Between Marina Parkway and Bay Boulevard
- Marina Parkway between E Street and J Street.

Furthermore, the General Plan Update EIR concluded that traffic-related impacts would be worse with the adopted plan then those impacts would be with the plan under consideration for the Chula Vista Bayfront Master Plan (2005: 575–576).

The No Project Alternative's impacts on traffic/circulation and parking would be greater than impacts that may result from the Proposed Project. As a result, the No Project Alternative would not avoid or substantially lessen the significant effects of the Proposed Project on traffic/circulation.

5.3.3 Aesthetics/Visual Quality

Under the No Project Alternative, permitted building heights in the Sweetwater District would range from a maximum height of 229 feet for high-rise residential sites in the northeastern area to a maximum 30-foot height in the area generally adjacent to the Sweetwater Marsh NWR. The bulk and scale of buildings in the Sweetwater District would be greater with the No Project Alternative than with the Proposed Project, and in the Harbor and Otay Districts, buildings would be larger.

The views from the Sweetwater District are more sensitive than in the Otay and Harbor Districts. This is due to the adjacent Sweetwater Marsh NWR and the currently undeveloped character of the area. The existing and previous industrial development in the Harbor and Otay Districts make this area less sensitive. The No Project Alternative would reduce the visual effects of development in the Harbor and Otay Districts, but would still have a significant effect because of the scale of the buildings in the more sensitive Sweetwater District.

While development under the No Project Alternative would reduce aesthetics/visual quality impacts in the Harbor and Otay Districts, impacts in the Sweetwater District would be similar to the Proposed Project. As a result, the No Project Alternative would avoid or lessen some of the significant effects of the Proposed Project on aesthetics/visual quality. Impacts regarding light and glare would be similar to the Proposed Project, as they would introduce substantial new sources of light from the approved land uses in the Sweetwater District.

5.3.4 Hydrology/Water Quality

In the near term, there would be no change to the existing drainage network or land uses. New development would be required to comply with existing water quality regulations to avoid or reduce impacts. Development would proceed in accordance with approved plans that implement best available technologies and best management practices as required by the Clean Water Act and other regulations (see *Section 4.5, Hydrology/Water Quality* of this report). Similar to the Proposed Project, this would reduce impacts to below the level of significance.

5.3.5 Air Quality

The No Project Alternative assumes that development occurs in a manner consistent with the adopted land use plans. Impacts would be consistent with regional planning projections and would not be in conflict with adopted plans. As with the Proposed Project, the No Project Alternative represents a significant air quality impact because it is inconsistent with the assumptions used for the current RAQS; the current General Plan is also in conflict with the assumptions used to generate the strategy. While the No Project Alternative is the land use plan for the district that was used in the most recent growth projections upon which the strategy is based, the General Plan itself is no longer consistent with those assumptions.

Development in accordance with the adopted plans would result in additional air emissions to the SDAB both from construction and from operations. While the Proposed Project increases the commercial and residential uses within the planning district, it eliminates the industrial use. Increased industrial development in the Harbor and Otay Districts, as permitted under the existing LCP Land Use Plan, would result in increased pollutants in the project area over that which is expected under the Proposed Project. GHG emissions would also be greater under the No Project Alternative than as expected under the Proposed Project. In addition, the Proposed

Project will implement measures to reduce GHG emissions consistent with AB 32 and related Executive Orders.

It is anticipated that the construction of the No Project Alternative would produce air pollutant emissions on the same order of magnitude as the Proposed Project. The actual effect of those emissions would depend on the timing of construction and the nature of the industrial uses ultimately proposed for the Harbor and Otay Districts. Therefore, as with the Proposed Project, in the absence of a more specific development proposal, air quality impacts would be significant.

5.3.6 Noise

In the near term, there would be no change to the existing noise environment. As new development occurs in a manner consistent with the adopted land use plans, increased traffic and associated noise would be expected. Furthermore, selection of the No Project Alternative could result in new industrial, commercial, or other noise-generating uses that may cause noise levels to rise over time. Operational noise levels from the increased commercial and industrial development permitted under the existing LCP Land Use Plan would therefore be expected to be greater under the No Project Alternative than the Proposed Project. In addition, the existing LCP Land Use Plan anticipates high-intensity development of the Sweetwater District, while the Proposed Project focuses development away from the Sweetwater District due to the site's proximity to the Sweetwater Marsh NWR. Noise-sensitive uses such as the F & G Street Marsh and Sweetwater Marsh NWR would be greatly impacted by high-intensity development in the Sweetwater District. Prior to approval, any new uses would be subject to review for conformance with adopted noise ordinances. Future projects would be assessed for conformance to existing noise ordinances. Implementation of mitigation identified for a specific use or conformance with applicable ordinances would reduce impacts to below the level of significance.

Noise impacts under the No Project Alternative would result primarily from increased traffic on area roads. The effects of noise resulting from traffic increases on city streets in light of the development of the General Plan were considered as part of the City's General Plan Update EIR (December 2005). That document indicated that noise impacts associated with this increased traffic were significant and identified mitigation measures to lessen that effect. Therefore, consistent with the mitigation identified in the adopted General Plan Update EIR, the No Project Alternative would result in a significant cumulative noise impact for which mitigation measures would be required.

5.3.7 Biological Resources (Terrestrial and Marine)

The No Project Alternative would result in greater impacts to biological resources than the Proposed Project as a result of higher intensity development in the Sweetwater District. In addition, the PMP calls for development of marine-related industrial and commercial uses on

Port holdings which likely would cause similar significant impacts to sensitive vegetation communities, sensitive plants and animals, wetlands, and marine resources (including eelgrass) as discussed in *Sections 4.8*, *Terrestrial Biological Resources*, and *Section 4.9*, *Marine Biological Resources*. Environmental review would be required at the time plans are proposed to identify specific impacts. Mitigation similar to that identified in *Sections 4.8* and *4.9* for the Proposed Project would be required to address potential impacts related to loss of sensitive habitats, including coastal sage scrub, wetlands, and dependent species. Indirect impacts from human activity adjacent to the wildlife refuge (including noise and lighting impacts, potential intrusion affecting wildlife movement) has the potential to be greater than for the Proposed Project if development is approved as envisioned in the adopted LCP, which includes the LUP. Future development within the Pacific Flyway would be expected to be similar to that of the project except that the approved LCP, which includes the LUP, could result in taller buildings closer to the Sweetwater Marsh NWR, which, in turn, may increase bird strikes against buildings and adjacency issues due to increased activity, greater potential for encroachment, and lighting impacts on the preserve.

5.3.8 Cultural Resources

The general development footprint for the No Project Alternative would be same as the Proposed Project, and, therefore, the impacts to cultural resources would be similar. As with the Proposed Project, no cultural resources were identified in the project area and none are expected to occur. Impacts under this alternative would remain less than significant.

5.3.9 Paleontological Resources

Impacts to paleontological resources would be similar to those identified for the Proposed Project. Uses with the potential to impact identified paleontological resources would be required to either avoid the impact or implement mitigation. As with the Proposed Project, development under the No Project Alternative could result in disturbance of the fossil-bearing Bay Point Formation. This would be a significant impact. Therefore, the No Project Alternative does not avoid or substantially lessen impacts of the Proposed Project.

5.3.10 Hazards and Hazardous Materials/Public Safety

Under the No Project Alternative, no residences would be built in the Harbor and Otay Districts, both of which have a long history of industrial uses. Thus, compared to the Proposed Project, the No Project Alternative would incrementally reduce the risk that sensitive populations would be exposed to chemicals that may be present. There is the potential for hazardous materials to be present within the Sweetwater District, where the No Project Alternative would place high-density residential uses. However, because there would be less residential uses under the No

Project Alternative relative to the Proposed Project, this alternative represents a less substantial impact.

The site is currently under a Cleanup and Abatement Order (CAO No. 98-08, revised April 2, 1998) for cleanup of contamination associated with past uses on the former BF Goodrich South Campus. Cleanup activities are being performed under separate approvals, and site remediation to appropriate standards for proposed uses is assumed as a baseline condition. As with the Proposed Project, implementation of Cleanup and Abatement Order programs and other remediation, combined with implementation of mitigation measures detailed in *Section 4.12, Hazards and Hazardous Materials/Public Safety*, which require the project to coordinate with responsible agencies to show that remediation has been completed to a standard acceptable for proposed uses, would ensure that impacts are avoided or reduced to a level of less than significant prior to development of any given site. As for the Proposed Project, implementation of the above measures would ensure that impacts of the No Project Alternative would be reduced to below a level of significance.

5.3.11 Public Services

Impacts to schools, parks and recreation, and library services would be reduced under this alternative, as only 1,060 residential units would be allowed to develop, provided plans are approved for development of the Sweetwater District in conformance with the approved LCP/LUP. Furthermore, high-intensity near-term development is not anticipated under the adopted plan, so impacts to services would be incremental and expected to occur over an extended period of time. Impacts to police protection services would be expected to be similar to those under the Proposed Project.

The City's Fire Department considers the Bayfront area to be a geographic location that is underserved by the existing fire station network. While the Proposed Project would include the construction of a new fire station, the No Project Alternative would not include a new fire station. The Port is precluded by law from providing municipal facilities, including fire protection facilities, on Port land. Under this alternative, the City has not agreed to acquire Parcel H-17 from the Port and, as such, a suitable location for a new fire facility has not been identified. As a result, a significant impact on fire protection services would continue to exist under the No Project Alternative. This impact is greater than the Proposed Project and would result in a significant impact. In order to address this impact, the City would have to provide additional equipment and/or facilities as deemed necessary by the City's Fire Department to ensure adequate fire protection services. The changes that may result from the provision of additional equipment or facilities as may be identified in the City's Fire Master Plan would be the responsibility and within the jurisdiction of the City and not the Port.

5.3.12 Public Utilities

Impacts to public utilities would be similar to those resulting from implementation of the Proposed Project. For new industrial facilities, however, future uses could require greater supplies than would be required for the Proposed Project. Ultimate build-out consistent with the adopted land use plans would be expected to require upgrades to sewer and water supply facilities to meet increased demand over time. Required upgrades to utility systems would not be coordinated to meet future need at build-out, as would occur with implementation of the Proposed Project.

5.3.13 Seismic/Geologic Hazards

Because the grading footprint for the No Project Alternative would be similar to the Proposed Project with ultimate development based on existing land use approvals, impacts to geologic and seismic hazards would be similar. Implementation of site-specific engineering/geotechnical mitigation measures, as detailed in *Section 4.15, Seismic/Geologic Hazards*, would be expected to reduce impacts to below a level of significance.

5.3.14 Energy

Selection of the No Project Alternative would ensure that development occurs in a manner consistent with the adopted land use plans and therefore consistent with regional planning projections. Impacts would be less than significant.

5.3.15 Population and Housing

Selection of this alternative provides for development of fewer residential units (1,060) than for the Proposed Project (1,500) and ultimately fewer new residents in the Chula Vista Bayfront. Development under this alternative would result in an estimated 2,288 people living in the Sweetwater District. As with the Proposed Project, the No Project Alternative would not displace any existing residences and no housing would need to be constructed elsewhere. Impacts, therefore, would be less than significant.

5.4 Harbor Park Alternative

The Harbor Park Alternative was developed in conjunction with the community as one of three design options (including the Proposed Project) that is discussed in greater detail in this report. At build-out, the proposed Harbor Park Alternative would result in a project impact area slightly less than that of the Proposed Project, by not developing the triangular parcel south of HP-11 and east of the proposed E Street Extension/Marina Parkway Realignment (see *Figure 5.4-1*). The Harbor Park Alternative provides less-intensive land uses, such as a signature park, along the shoreline between G Street and H Street via location of a resort conference center (RCC) on H-

23, away from the shoreline. The Harbor Park alternative also entails location of a resort hotel on H-1 and cultural uses on H-3. The Harbor Park Alternative combines Parcels HP-1 and H-3 under the Proposed Project to establish one parcel, HP-1, which would be developed as a 35-acre signature park adjacent to the Bay, within walking distance of proposed cultural, retail, residential, and marina uses. In addition, modifications to H-18, S-2, S-1, H-8/H-9, and E Street Extension/Marina Parkway alignment are proposed under the Harbor Park Alternative, as described below.

The Harbor Park Alternative is similar to the Proposed Project except for the following major differences:

- An RCC would be located on a smaller, 24-acre Parcel H-23 in the Harbor District, which is further away from the Bayfront. However, only 1,500 of the hotel rooms would be built in Phase II, and the remaining 500 rooms would be built in Phase III.
- A Signature Park would be integrated with the existing Bayside Park on Parcel HP-1 in the Harbor District, bringing the park closer to the water's edge on a larger, 35-acre parcel.
- Adjacent to the signature park on H-3, up to 400,000 square feet of cultural/retail would be built in Phase III.
- The interim surface parking lot on H-18 would be constructed in Phase II, instead of in Phase I as with the Proposed Project.
- A maximum 400-room conference hotel with a maximum height of 60 feet would be constructed on S-2 in Phase II, instead of a Signature Park in the Sweetwater District in Phase I.
- Mixed-use office/commercial/recreation/cultural uses with a maximum height of 60 feet would replace the 750-room resort hotel with a maximum height of 100 feet on S-1 in the Sweetwater District. Specifically, up to 300,000 square feet of mixed-use office/commercial recreation and 50,000 square feet of cultural would be built on S-1.
- A 500-room resort hotel with a maximum height of 65 feet and a 200-slip marina would replace the community boating center on H-1 in the Harbor District.
- Up to 100,000 square feet of retail would be built around the northern portion of the harbor on H-8/H-9, instead of up to 50,000 square feet of retail as with the Proposed Project.
- The E Street Extension/Marina Parkway alignment within Sweetwater would be modified to direct traffic easterly as the road enters the Harbor District. The Marina Parkway segment between Goodrich and H-3 would be a primary public access road. Under the

Proposed Project, this road traverses west as it enters the Harbor District connecting to the end of H Street.

- No fire station would be proposed on H-17, as is proposed under the Proposed Project. This parcel would remain in the Port's jurisdiction and would be designated for Industrial Business Park use.
- SP-3 would be constructed in Phase IV, instead of in Phase I as proposed under the Proposed Project.

Table 5.4-1 provides a summary of proposed land uses for the Harbor Park Alternative. *Figure 5.4-1* provides a detailed parcel plan layout under the Harbor Park Alternative. *Figure 5.4-2* illustrates this plan. The required cut-and-fill details are listed in *Table 5.4-2* below.

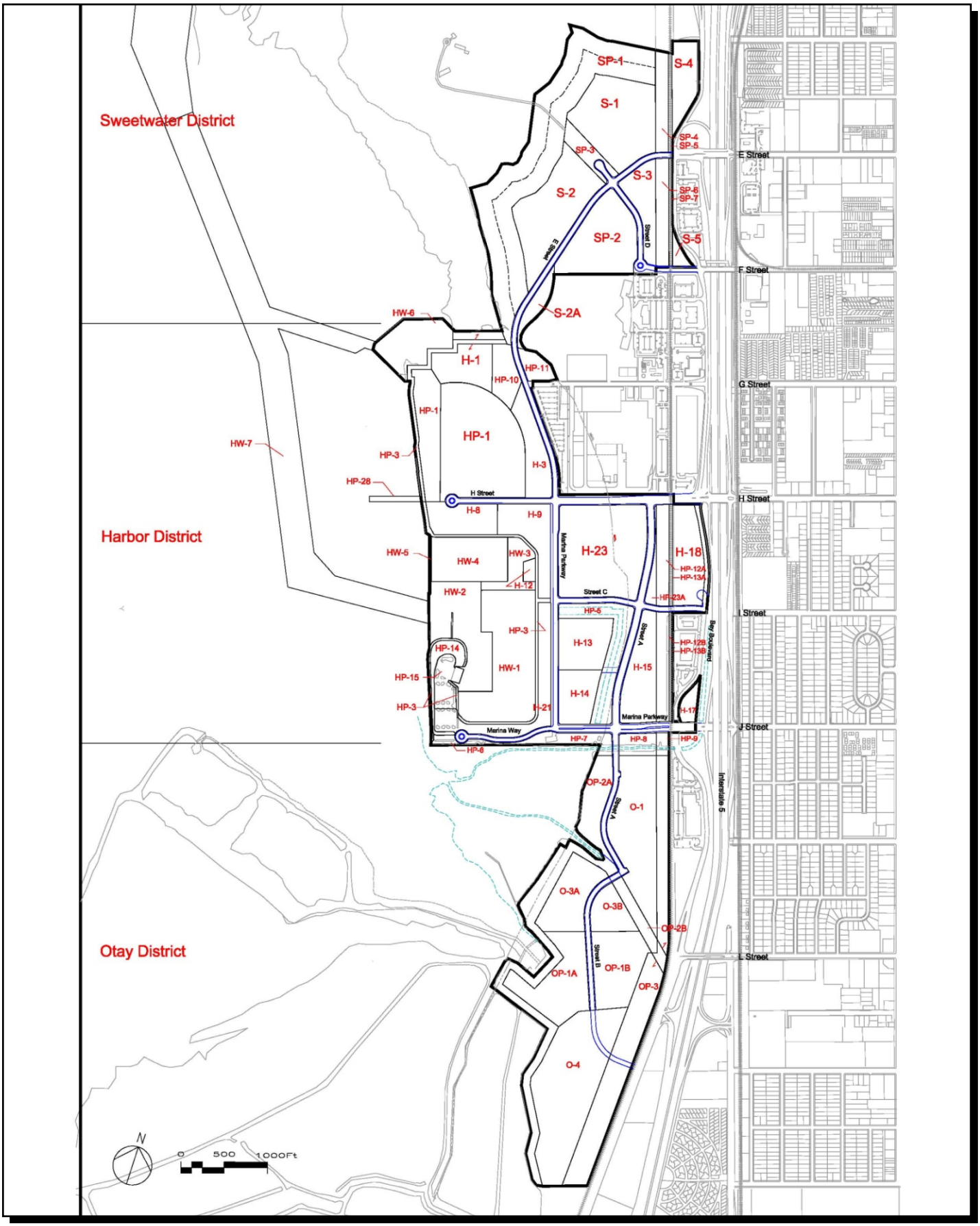
TABLE 5.4-1
Harbor Park Alternative Summary Table
Proposed Uses and Development Program/Height Ranges

District, Phase, Parcel Number	Proposed Use	Approximate Program Range	Maximum Stories	Maximum Height (feet)
Sweetwater District				
Phase II				
S-2	Conference Hotel	250 to 400 rooms	2 to 4	40 to 60
S-2A	Open Space	3 acres	N/A	N/A
SP-1	Ecological Buffer	41 acres	N/A	N/A
Streets	E Street Extension, F Street Termination, Street D	N/A	N/A	N/A
SP-2	Seasonal Wetland	14 acres	N/A	N/A
Phase IV				
S-1	Mixed-Use Office/Commercial Recreation	200,000 to 300,000 square feet	2 to 4	40 to 60
S-1	Cultural	10,000 to 50,000 square feet	2 to 3	30 to 45
S-3	Mixed-Use Office/Commercial Recreation	60,000 to 120,000 square feet	2 to 3	30 to 45
S-4	Office	120,000 square feet	8	125
SP-3	Nature Center Parking and Access Road	3 acres	N/A	N/A
SP-4, SP-5, SP-6, SP-7	Parks/Open Space	11 acres	N/A	N/A
Harbor District				
Phase I				
H-13, H-14	Residential	1,500 units	4 to 19	70 to 220
H-13, H-14	Retail	15,000 square feet	N/A	N/A
HP-1	Signature Park, Street	35 acres	N/A	N/A
HP-3	Shoreline Promenade (abutting HP-1)	2 acres	N/A	N/A
HP-5	Wetlands and Buffer	9 acres	N/A	N/A
Streets	H Street Extension, Street A, Street C, Bay Blvd. Segment Termination, J Street/Marina Parkway Realignment, Marina Way	N/A	N/A	N/A
Phase II				
H-8, H-9	Retail/Commercial Recreation and Marina Support	50,000 to 100,000 square feet	1 to 2	15 to 30
H-15 H-15	Mixed-Use Office/Commercial Recreation Hotel	420,000 square feet 250 rooms	14 to 17 14 to 17	90 to 130
H-23	Resort Conference Center (RCC)	1,500 rooms	20 to 25	250 to 300
H-23	RCC Conference Space	400,000 square feet (net)	20 to 25	250 to 300

TABLE 5.4-1 (Cont.)

District, Phase, Parcel Number	Proposed Use	Approximate Program Range	Maximum Stories	Maximum Height (feet)
H-23	RCC Retail	100,000 square feet	20 to 25	250 to 300
HP-28	H Street Pier (first half)	0.4 acre	N/A	N/A
Phase III				
H-3	Cultural/Retail	200,000 to 415,000 square feet	3 to 5	45 to 75
HP-23A	Industrial Business Park Use	3 acres	N/A	N/A
H-21	Retail/Commercial Recreation and Marina Support	75,000 to 150,000 square feet	1 to 2	15 to 30
H-23	Resort Conference Center (RCC)	500 rooms	20 to 25	250 to 300
HP-3	Shoreline Promenade (abutting H-21)	3 acres	N/A	N/A
HP-9, HP-12, HP-13, HP-14, HP-15	Parks/Open Space	19 acres	N/A	N/A
Phase IV				
H-1	Resort Hotel	350 to 500 rooms	3 to 5	50 to 65
H-18	Mixed-Use Office/Commercial Recreation	100,000 square feet	6 to 10	85 to 155
H-18	Collector Parking Garage	1,100 to 3,000 parking spaces	6 to 10	85 to 155
HP-3	Shoreline Promenade (abutting H-1)	2 acres	N/A	N/A
HP-10	Parks/Open Space	5 acres	N/A	N/A
HP-28	H Street Pier (second half)	0.4 acre	N/A	N/A
HW-1, HW-2, HW-4, HW-6	Marinas (see H-1, H-9, and H-21), Boat Navigation/Open Water Area	54 acres, 900 slips	N/A	N/A
HW-3	Commercial Harbor	4 acres	N/A	N/A
H-12	Ferry Terminal/Restaurant	10,000 to 25,000 square feet	2	30 to 40
HW-7	Navigation Channel	60 acres	N/A	N/A
Otay District				
Phase III				
O-1	Industrial Business Park Use	N/A	N/A	N/A
O-3	RV Park	175 to 236 RV parking spaces	1 to 2	15 to 35
O-4	Industrial Business Park Use	28 acres	N/A	N/A
OP-1, OP-3	Park/Open Space	51 acres	1	N/A
OP-2A, OP-2B	Ecological Buffer/Telegraph Creek Channel	28 acres	N/A	N/A
Streets	Street A, Street B	N/A	N/A	N/A

S-5 Existing 1-acre Park will remain.
HP-11 Existing Wetland will remain.
HW-5 Existing Fishing Pier will remain.



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SOURCE: Port of San Diego

Revised Draft Environmental Impact Report (EIR) for the Chula Vista Bayfront Master Plan

Harbor Park Alternative Parcel Plan

FIGURE
5.4-1

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SOURCE: Port of San Diego, 2008

Revised Draft Environmental Impact Report (EIR) for the Chula Vista Bayfront Master Plan

Harbor Park Alternative Illustrative Plan

FIGURE
5.4-2

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TABLE 5.4-2
Grading Quantities (cubic yards)

District	Cut	Fill	Import/Export
Sweetwater District	159,000	95,000	64,000 export
Harbor District	100,000	510,000	<410,000> import
Otay District	61,000	365,000	<304,000> import
Total	**320,000**	**970,000**	**<650,000> import**

5.4.1 Land/Water Use Compatibility

In order to evaluate the land/water use compatibility impacts of the Harbor Park Alternative in relation to the Proposed Project, an evaluation of the Harbor Park Alternative against each Land/Water Use compatibility threshold was conducted. *Section 5.4.1.1* provides an impact analysis, and *Section 5.4.1.2* provides a summary of impacts and mitigation pertaining to the Harbor Park Alternative.

5.4.1.1 Impact Analysis of the Harbor Park Alternative

Some of the proposed uses for the Harbor Park Alternative are not consistent with the existing land/water use plans applicable to the project site; however, the Harbor Park Alternative includes amendments to the PMP, City of Chula Vista General Plan, and Chula Vista LCP (which includes the LUP and the Bayfront Specific Plan), which, if adopted, would eliminate the inconsistency and would allow the land/water uses proposed for the project site. Similar to the Proposed Project, the approval of the land exchange and adoption of the amendments to the PMP and City LCP would make the Harbor Park Alternative consistent with these plans. The discussion below outlines land/water use elements of the Harbor Park Alternative that are different from the Proposed Project.

a. Public Trust Doctrine

Similar to the Proposed Project, the Harbor Park Alternative involves a land exchange to improve land use compatibility in the Sweetwater District by moving the proposed residential uses away from sensitive resources. The land exchange involves the same parcels as those under the Proposed Project (Parcels S-1, S-3, SP-2, SP-3, and most of SP-1 and S-2 may be exchanged for all or some of Parcels H-13, H-14, H-15, and HP-5). The Harbor Park Alternative would be consistent with Section 6307, which provides rationale for allowing the SLC to enter into a land exchange. Similar to the Proposed Project, the Harbor Park Alternative would (1) improve navigation of waterways via rerouting the harbors approach channels to improve boat navigation and access; (2) enhance the physical configuration of the shoreline or trust land ownership via creation of a 400-foot-wide buffer between development and the Sweetwater March NWR; (3)

enhance public access to or along the water by providing an extension of H Street to the waterfront and a promenade along the shoreline; (4) enhance the development for public trust purposes by replacing abandoned industrial areas and creating commercial recreation opportunities and providing additional parkland; and (5) enhance wetlands via wetland restoration measures and the creation of eelgrass habitat.

b. California Coastal Act

Overall, the Harbor Park Alternative would result in impacts similar to that of the Proposed Project. The Harbor Park Alternative would require mitigation measures for the same impacts as those identified in *Table 4.1-7* pertaining to the Proposed Project.

A total of 22.21 acres of California Coastal Commission wetland have been mapped within the project impact area. Impacts to wetlands under the Harbor Park Alternative would be similar to that of the Proposed Project. The project would be required to avoid, minimize, or mitigate in accordance with Coastal Act requirements.

c. Port Master Plan

Similar to the Proposed Project, the Harbor Park Alternative achieves the goals of the current PMP. The Harbor Park Alternative provides increased access to public parks and commercial recreation. The intensity of development in the Sweetwater District would be greater for the Harbor Park Alternative as compared to the Proposed Project. The Harbor Park Alternative provides an additional 128 acres of parkland as compared to the Proposed Project, which is consistent with the Port's public amenities objectives. Because the adoption of the PMP proposed amendment is a proposed action covered under this EIR, the Harbor Park Alternative would be consistent with the PMP. This less than significant finding is similar to that of the Proposed Project. *Appendix 3.4-1* of this report contains the entire draft PMP Amendment text and graphics for the Harbor Park Alternative.

d. City of Chula Vista General Plan

Similar to the Proposed Project, the Harbor Park Alternative requires General Plan Amendment text and graphics. The objectives to be added to the City of Chula Vista General Plan in Section 11 are identical to that of the Proposed Project.

The Harbor Park Alternative would result in impacts similar to that of the Proposed Project. The Harbor Park Alternative would require mitigation measures for the same objectives as those identified in *Table 4.1-9* pertaining to the Proposed Project.

e. Local Coastal Program

Similar to the Proposed Project, the Harbor Park Alternative includes an amendment to the Chula Vista LCP. The LCP Amendments for the LUP and Specific Plan are included as appendices to this report (*Appendices 4.1-2* and *4.1-3*). Of specific interest unique to the Harbor Park Alternative is the following project feature:

- A Signature Park would be integrated with the existing Bayside Park on Parcel HP-1 in the Harbor District, bringing the park closer to the water's edge on a larger, single 35-acre parcel.

Because the Harbor Park Alternative achieves the goals of the current LCP, and since the adoption of the proposed LCP amendment is a proposed action covered by this report, the Harbor Park Alternative would be consistent with the LCP if it is adopted. This finding is similar to that of the Proposed Project.

MSCP Conformance. Approval of the proposed land trade would transfer parcels in the Harbor District from the Port jurisdiction to the City.

As with the Proposed Project, the Harbor Park Alternative would result in significant indirect impacts. The F & G Street Marsh, an MSCP preserve, is adjacent to the City's jurisdiction in the Sweetwater District and there is the potential for indirect impacts to occur from public access, such as pets traversing the preserve areas and litter from human beings, lighting during construction illuminating nearby roost sites and nests, noise from construction and operation, invasive plant species, and the potential release of toxic substances.

Land/water use compatibility would be similar to that of the Proposed Project. Non-industrial uses would be placed adjacent to the Goodrich facility, which would not represent an incompatible land use. In addition, this alternative provides 400-foot buffers and setbacks for the Sweetwater District and relocates the existing development from this district, placing the more urbanized uses in the Harbor District. It is noted that land uses within the Sweetwater District under the Harbor Park Alternative, which involves development on both Parcel S-2 with a conference hotel and Parcel S-1 with mixed/cultural uses, would be higher intensity as compared to the Proposed Project, which involves development of a signature park on S-2 and a resort hotel on S-1.

As with the Proposed Project, there are no identified significant impacts associated with this threshold pertaining to the Harbor Park Alternative.

5.4.1.2 Land/Water Use Summary and Mitigation

The Harbor Park Alternative would result in significance findings similar to that of the Proposed Project for land/water use as shown in *Table 5.4-3* below. All mitigation measures applicable to

the Proposed Project as detailed in *Section 4.1, Land/Water Use Compatibility*, would be required in order to reduce land/water use impacts to below a level of significance.

TABLE 5.4-3
Comparison of Land/Water Use Impacts

	Proposed Project	Harbor Park Alternative
Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project, including but not limited to the General Plan, Specific Plan, local coastal program, master plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	Yes: **Significant Impacts 4.1-1** through **4.1-3**	Similar
Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?	Yes: **Significant Impact 4.1-4**	Similar
Would the project create a substantial or extreme land/water use incompatibility with adjacent or nearby existing and proposed land uses, resulting in significant incompatibility or nuisance impacts?	No	No
Would the project conflict with an adopted PMP water use designation where substantial indirect or secondary environmental impacts would occur?	No	No

5.4.2 Traffic/Circulation and Parking

In order to evaluate the traffic/circulation and parking impacts of the Harbor Park Alternative in relation to the Proposed Project, an evaluation of the Harbor Park Alternative against each traffic/circulation and parking threshold was conducted. *Section 5.4.2.1* provides an impact analysis and *Section 5.4.2.2* provides a summary of impacts and mitigation pertaining to the Harbor Park Alternative.

The information presented in this section is based on the Traffic Impact Analysis prepared for the Chula Vista Bayfront Master Plan by Kimley-Horn and Associates, Inc. in February 2008.

5.4.2.1 Impact Analysis of the Harbor Park Alternative

The following discussion describes the traffic-related impacts for each of the three development phases for the Harbor Park Alternative. The intersection lane geometry and roadway segment

improvements incorporated into the Harbor Park Alternative project design to restore LOS to the minimum LOS performance standard are shown in *Table 5.4-4*.

As with the Proposed Project, under the Harbor Park Alternative, the segment of H Street between Street A and I-5 would be constructed as a five-lane major street. The fifth lane would be in the eastbound direction and would terminate in the southbound I-5 entrance ramp. H Street would also be designed to match the eight lanes that exist at the I-5 over-crossing. The over-crossing has two through lanes and two left-turn lanes in each direction. Appendix E of the Traffic Report (see this report's *Appendix 4.2-1*) contains a conceptual diagram depicting the improvements along H Street.

In addition, the segment of Marina Parkway between E Street and J Street would be reconstructed as a two-lane roadway. The downsizing of this segment of Marina Parkway is intended to provide space for the construction of wider sidewalks and an improved bicycle path along the western side of the roadway, creating a pedestrian and bicycle-friendly corridor.

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TABLE 5.4-4
Harbor Park Alternative Proposed Roadway Segment, Intersection, and Freeway Improvements

Facility	Description of Improvement	Timing
Roadway Segments		
E Street between Bay Boulevard and F Street	Construct as a 4-lane Class I Collector	Phase I
H Street west of Marina Parkway	Construct as a 2-lane Class II Collector	Phase I
H Street between Marina Parkway and Street A	Construct as a 4-lane major street	Phase I
H Street between Street A and I-5	Construct as a 5-lane major street	Phase I
J Street west of Marina Parkway	Construct as a 2-lane Class III Collector	Phase I
J Street between Marina Parkway and Street A	Construct as a 4-lane major street	Phase I
J Street between Street A and Bay Boulevard	Construct as a 6-lane major street	Phase I
Marina Parkway between E Street and J Street	Re-build as a 2-lane Class II Collector and use excess ROW for pedestrian facilities	Phase I
Street A between H Street and J Street	Construct as a 4-lane Class I Collector	Phase I
Street C between Marina Parkway and Bay Boulevard	Construct as a 2-lane Class II Collector	Phase I
Bay Boulevard between H Street and Street C	Remove segment	Phase I
Street A between J Street and Street B	Construct as a 2-lane Class II Collector	Phase II
Street B between Street A and Bay Boulevard	Construct as a 2-lane Class II Collector	Phase II
Intersections		
E Street and I-5 SB Off-Ramp	Additional through lane in the EB/WB direction and separating the EB RT lane	Phase I
Marina Parkway and H Street	Construct and install a traffic signal	Phase I
Bay Boulevard and H Street	Remove the south leg and all movements related to the south leg, restrict movements on north leg to RT only, eliminate EB LT movement	Phase I
H Street and I-5 SB Ramps	Additional through lane in EB direction and separating the EB RT lane	Phase I
Bay Boulevard and J Street	Install a traffic signal, add a through lane in the EB/WB direction, separate the SB RT lane	Phase I
H Street and Street A	Construct and install a traffic signal	Phase I
J Street and Street A	Construct and install a traffic signal	Phase I
E Street and F Street	Construct two-way stop-controlled intersection	Phase I
J Street and Marina Parkway	Construct all-way stop-controlled intersection	Phase I
Street C and Marina Parkway	Construct two-way stop-controlled intersection	Phase I
Street C and Street A	Construct all-way stop-controlled intersection	Phase I
Street B and Street A	Construct two-way stop-controlled intersection	Phase II
Street B and Bay Boulevard	Construct two-way stop-controlled intersection	Phase II
Freeway Segments		
I-5 between State Route 54 and Palomar Street	Participate in fair share of the I-5 Corridor Study conducted by Caltrans and SANDAG	Phase III (Build-out)

SOURCE: Kimley-Horn and Associates, Inc. 2006.
SB = Southbound; EB = Eastbound; WB = Westbound; RT = Right-turn; LT = Left-turn;

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Trip Generation

Overall, the Harbor Park Alternative is expected to generate a total of 86,406 daily trips as compared to 80,767 total daily trips for the Proposed Project. This includes 5,843 (3,742 in, 2,101 out) A.M. peak-hour trips and 8,278 (3,874 in, 4,404 out) P.M. peak-hour trips.

With implementation of the Harbor Park Alternative, Phase I is expected to generate a total of 46,808 daily trips with 3,359 (2,041 in, 1,318 out) A.M. peak-hour trips and 4,313 (2,137 in, 2,176 out) P.M. peak-hour trips. Although more trips would ultimately be generated, Phase I would result in 15,861 fewer average daily trips than would occur in the first phase of the Proposed Project. Phase II is expected to generate a total of 29,418 daily trips, including 1,271 (612 in, 659 out) A.M. peak-hour trips and 2,579 (1,430 in, 1,149 out) P.M. peak-hour trips. By build-out of Phase II, the number of trips generated by the Harbor Park Alternative would be roughly the same as for the Proposed Project. Phase III is expected to generate a total of 10,180 daily trips (compared to 4,080 daily trips for the Proposed Project), including 1,213 (1,089 in, 124 out) A.M. peak-hour trips and 1,386 (307 in, 1,079 out) P.M. peak-hour trips. At build-out, trip generation from development of the Harbor Park Alternative is calculated to generate an average of 5,639 more daily trips than for the Proposed Project.

Intersection Analysis

Six study intersections would experience direct impacts over the three phases under this alternative (see *Appendix 4.2-1*). Phase I traffic impacted two intersections, Phase II impacted three intersections, and Phase III project traffic impacted one intersection. As shown in *Table 5.4-5*, proposed improvements incorporated into the Harbor Park Alternative project design would restore LOS to the minimum performance standard (i.e., LOS D or better) except at the H Street/Broadway intersection where the operations would remain at LOS E. Prior to implementation of proposed mitigation, significant direct and cumulative project impacts would be worse for the Harbor Park Alternative than for the Proposed Project at the following intersections:

- E Street/I-5 southbound off-ramp during the P.M. peak hour (Direct Impact, LOS F as compared to LOS E for the Proposed Project), and
- H Street and Broadway during the P.M. peak hour (Cumulative Impact, LOS F as compared to LOS E for the Proposed Project).

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TABLE 5.4-5
Harbor Park Alternative — Peak-Hour Intersection Level of Service Summary

Intersection		Phase I Improvements	Phase II Improvements	Phase III Improvements
1	E Street and I-5 SB Off-Ramp	—	—	Add second NB right-turn lane, second SB left-turn lane, second SB right-turn lane
14	H Street and Bay Boulevard	—	Signalize Intersection	—
16	H Street and I-5 NB Ramps[1]	—	Add two WB thru lanes	—
17	H Street and Woodlawn Avenue[1]	—	Add EB and WB thru lane	Add WB right-turn lane
18	H Street and Broadway	—	—	Add third WB thru lane and WB right-turn lane
22	J Street and Bay Boulevard	—	Add EB right-turn lane	—
24	J Street and I-5 NB Ramps	—	Add WB right-turn lane	Add second EB left-turn lane
27	L Street and Bay Boulevard	Construct Traffic Signal	—	—
30	I-5 SB Ramps and Bay Boulevard	Construct Traffic Signal	—	—

Intersection		Peak-Hour	Before Phase I Improvement		After Phase I Improvement		Before Phase II Improvement		After Phase II Improvement		Before Phase III Improvement		After Phase III Improvement	
			Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delay[2]	LOS[3]
1	E Street and I-5 SB Off-Ramp	A.M.	–	–	–	–	–	–	–	–	27.6	C	22.2	C
		P.M.	–	–	–	–	–	–	–	–	149.7	**F**	51.7	D
14	H Street and Bay Boulevard	A.M.	–	–	–	–	11.9	B	3.2	A	–	–	–	–
		P.M.	–	–	–	–	80.3	**F**	15.8	B	–	–	–	–
16	H Street and I-5 NB Ramps[1]	A.M.	–	–	–	–	16.8	B	14.2	B	–	–	–	–
		P.M.	–	–	–	–	53.5	D	19.7	B	–	–	–	–
17	H Street and Woodlawn Avenue[1]	A.M.	–	–	–	–	38.7	D	27.5	C	65.7	**E**	52.8	D
		P.M.	–	–	–	–	41.8	D	36.8	D	57.1	**E**	47.6	D
18	H Street and Broadway	A.M.	–	–	–	–	–	–	–	–	47.8	D	36.9	D
		P.M.	–	–	–	–	–	–	–	–	81.3	**F**	64.4	**E**
22	J Street and Bay Boulevard	A.M.	–	–	–	–	24.3	C	21.6	C	–	–	–	–
		P.M.	–	–	–	–	61.6	**E**	31.6	C	–	–	–	–
24	J Street and I-5 NB Ramps	A.M.	–	–	–	–	70.7	**E**	52.2	D	76.7	**E**	52.8	D
		P.M.	–	–	–	–	63.0	**E**	44.7	D	45.0	D	23.8	C
27	L Street and Bay Boulevard	A.M.	ECL	**F**	6.5	A	–	–	–	–	–	–	–	–
		P.M.	ECL	**F**	15.0	B	–	–	–	–	–	–	–	–
30	I-5 SB Ramps and Bay Boulevard	A.M.	28.3	D	7.9	A	–	–	–	–	–	–	–	–
		P.M.	63.7	**F**	13.4	B	–	–	–	–	–	–	–	–

SOURCE: Kimley-Horn and Associates, Inc. 2006.
Bold values indicate intersections operating at LOS E or F. Bold and shaded values indicate direct project significant impact.
SB = Southbound; NB = Northbound; WB = Westbound; LOS = Level of Service; ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.
[1]Intersections 16 and 17 are improved as part of Phase II roadway mitigation widening of H Street.
[2]Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a two-way stop-controlled intersection, delay refers to the worst movement.
[3]LOS calculations are based on the methodology outlined in the *2000 Highway Capacity Manual* and performed using Synchro 6.0.

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However, as compared to the Proposed Project, build-out of the Harbor Park Alternative would lessen the significant cumulative impacts at:

- H Street and Woodlawn during the A.M. and P.M. peak hours (LOS E as compared to LOS F), and
- H Street and the I-5 northbound ramps (LOS C during the P.M. peak hour as compared to LOS E).

Project mitigation for impacted intersections under this alternative are included in *Table 5.4*-6 The mitigation measures in the table would restore traffic levels to LOS D or better, except at the H Street/Broadway intersection. As with the Proposed Project, the impact at the H Street/Broadway intersection would remain significant and unmitigable.

Roadway Segment Analysis

As shown in *Table 5.4-7*, development of the Harbor Park Alternative would directly impact one segment along H Street during Phase II development. Additionally, as discussed in *Chapter 6, Cumulative Impacts*, segments along Bay Boulevard and Marina Parkway would have a cumulative project impact in Phases I, II, and/or III. Figure 5-33 of the Traffic Report (see *Appendix 4.2-1*) shows locations of the roadway segments that have an impact (direct or cumulative) for each phase of development. For roadway segments that have a significant direct or cumulative impact which occur in multiple phases, the first phase in which the impact occurs is shown on the figure.

At build-out, the following significant direct and cumulative project impacts to road segments would be worse for the Harbor Park Alternative than for the Proposed Project:

- H Street, I-5 ramps to Broadway (Direct Impact, LOS E as compared to LOS D for the Proposed Project),
- J Street, Bay Boulevard to the I-5 ramps (Cumulative Impact, LOS E as compared to LOS D for the Proposed Project),
- Bay Boulevard, between C and J Streets (Cumulative Impact, LOS E as compared to LOS C for the Proposed Project), and
- Bay Boulevard, between J and L Streets (Cumulative Impact, LOS E as compared to LOS D for the Proposed Project).

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TABLE 5.4-6
Harbor Park Alternative Roadway Segment, Intersection, and Freeway Mitigation

Facility	Description of Improvement	Timing
Roadway Segments		
H Street between I-5 Ramps and Broadway	Widen to a 6-lane gateway street	Phase II
Intersections		
L Street & Bay Boulevard	Construct and install a traffic signal	Phase I
I-5 SB Ramps & Bay Boulevard	Construct and install a traffic signal	Phase I
H Street & I-5 NB Ramps	Add two WB through lanes as part of roadway segment mitigation	Phase II
H Street & Woodlawn Avenue	Add EB and WB through lane as part of roadway segment mitigation	Phase II
H Street & Bay Boulevard	Signalize intersection	Phase II
J Street & Bay Boulevard	Add EB right-turn lane	Phase II
J Street & I-5 NB Ramps	Add WB right-turn lane	Phase II
E Street & I-5 SB Off-Ramp	Add second NB right-turn lane, second SB left-turn lane, second SB right-turn lane	Phase III
H Street & Woodlawn Avenue	Add WB right-turn lane	Phase III
H Street & Broadway	Add WB through lane and WB right-turn lane	Phase III
J Street & I-5 NB Ramps	Add second EB left-turn lane	Phase III
Freeway Segments		
I-5 between State Route 54 and Palomar Street	Add an HOV lane in each direction	Phase III (Build-out)

SOURCE: Kimley-Horn and Associates, Inc. 2006.
SB = Southbound; WB = Westbound; EB = Eastbound; HOV = High Occupancy Vehicle; Caltrans = California Department of Transportation

TABLE 5.4-7
Harbor Park Alternative Roadway Segment Level of Service Summary by Phase

Roadway Segment	Roadway Classification	Acceptable Volume	Phase I Baseline		Phase I Baseline Plus Project		Phase II Baseline		Phase II Baseline Plus Project		Phase III Baseline		Phase III Baseline Plus Project	
			ADT	LOS	ADT	LOS	ADT	LOS	ADT	LOS	ADT	LOS	ADT	LOS
E Street														
Marina Parkway to F Street	2 Lanes Class II Collector	12,000	–	–	4,040	A	4,040	A	6,340	A	6,340	A	7,350	A
F Street to Bay Boulevard	4 Lanes Class I Collector	22,000	740	A	5,600	A	5,890	A	7,470	A	8,210	A	15,930	A
Bay Boulevard to I-5 Ramps	4 Lanes Major Street	30,000	14,520	A	18,710	A	18,710	A	19,840	A	19,840	A	26,160	B
I-5 Ramps to Woodlawn Avenue	4 Lanes Gateway Street	43,200	26,800	A	29,690	B	29,690	B	30,540	B	30,540	B	34,620	C
Woodlawn Avenue to Broadway	4 Lanes Gateway Street	43,200	26,560	A	29,170	B	29,170	B	30,020	B	30,020	B	33,380	B
Broadway to Third Avenue	4 Lanes Urban Arterial	37,800	18,410	A	20,390	A	20,390	A	20,950	A	20,950	A	23,810	A
F Street														
E Street to Bay Boulevard	2 Lanes Class II Collector	12,000	–	–	1,510	A	1,510	A	2,690	A	2,690	A	4,150	A
Bay Boulevard to Broadway	4 Lanes Downtown Promenade	33,750	4,350	A	5,670	A	5,670	A	6,940	A	6,940	A	8,530	A
Broadway to Fourth Avenue	2 Lanes Downtown Promenade	14,400	10,310	B	11,030	B	11,030	B	11,910	C	11,910	C	12,280	C
Fourth Avenue to Third Avenue	4 Lanes Downtown Promenade	33,750	10,440	A	10,950	A	11,410	A	11,700	A	12,890	A	13,100	A
H Street														
West of Marina Parkway	2 Lanes Class II Collector	12,000	–	–	3,240	A	3,240	A	6,770	A	6,770	A	6,770	A
Marina Parkway to Street A	4 Lanes Major Street	30,000	–	–	3,610	A	3,840	A	4,510	A	5,130	A	5,490	A
Street A to I-5 Ramps	5 Lanes Major Street	35,000	–	–	29,890	B	29,890	B	36,760	**D**	36,760	**D**	37,120	**D**
I-5 Ramps to Broadway	4 Lanes Gateway Street	43,200	31,760	B	39,130	D	41,280	D	43,700	**E**				
I-5 Ramps to Broadway	6 Lanes Gateway Street	61,200									49,270	C	49,520	C
Broadway to Third Avenue	4 Lanes Urban Arterial	37,800	27,430	B	31,360	C	31,360	C	32,620	C	32,620	C	32,930	C
J Street														
Marina Pkwy to Street A	4 Lanes Major Street	30,000	6,700	A	6,700	A	6,700	A	13,230	A	13,230	A	13,230	A
Street A to Bay Blvd	6 Lanes Major Street	40,000	6,700	A	22,730	A	22,730	A	29,520	A	29,520	A	29,570	A
Bay Blvd to I-5 Ramps	4 Lanes Major Street	30,000	17,200	A	29,670	C	29,670	C	35,570	**E**				
Bay Blvd to I-5 Ramps	6 Lanes Major Street	40,000									35,570	C	35,570	C
I-5 Ramps to Broadway	4 Lanes Major Street	30,000	17,280	A	20,700	A	20,750	A	23,020	B	23,160	B	23,160	B
L Street														
Bay Boulevard to Industrial Way	4 Lanes Gateway Street	43,200	15,100	A	18,530	A	18,530	A	20,800	A	20,800	A	20,800	A
Industrial Way to Broadway	4 Lanes Gateway Street	43,200	20,400	A	23,600	A	23,600	A	25,070	A	25,070	A	25,070	A
Marina Parkway														

TABLE 5.4-7 (Cont.)

Roadway Segment	Roadway Classification	Acceptable Volume	Phase I Baseline		Phase I Baseline Plus Project		Phase II Baseline		Phase II Baseline Plus Project		Phase III Baseline		Phase III Baseline Plus Project	
			ADT	LOS	ADT	LOS	ADT	LOS	ADT	LOS	ADT	LOS	ADT	LOS
E Street to H Street	2 Lanes Class II Collector	12,000	–	–	4,390	A	4,390	A	7,710	A	7,710	A	8,670	A
H Street to Street C	2 Lanes Class II Collector	12,000	1,870	A	6,060	A	6,060	A	13,060	**D**	13,060	**D**	13,780	**E**
Street C to J Street	2 Lanes Class II Collector	12,000	2,470	A	7,970	A	7,970	A	14,760	**E**	14,760	**E**	15,480	**F**
Bay Boulevard														
E Street to F Street	2 Lanes Class III Collector	7,500	9,700	**F**	9,940	**F**	9,940	**F**	9,940	**F**	9,940	**F**	10,430	**F**
F Street to H Street	2 Lanes Class III Collector	7,500	2,810	A	3,370	A	3,740	A	4,250	A	5,210	A	5,330	A
Street C to J Street	2 Lanes Class III Collector	7,500	2,710	A	5,630	B	5,790	B	8,420	**E**	8,810	**E**	8,810	**E**
J Street to L Street	2 Lanes Class II Collector	12,000	3,040	A	10,090	B	10,140	B	13,670	**E**	13,810	**E**	13,860	**E**
L Street to I-5 Ramps	2 Lanes Class II Collector	12,000	3,520	A	4,800	A	4,950	A	6,160	A	6,550	A	6,600	A
South of I-5 Ramps	2 Lanes Class III Collector	7,500	3,520	A	4,800	A	4,950	A	5,800	B	6,190	B	6,240	B
Broadway														
C Street to E Street	4 Lanes Commercial Boulevard	33,750	26,010	B	26,310	C	26,310	C	26,510	C	26,510	C	27,130	C
E Street to H Street	4 Lanes Commercial Boulevard	33,750	25,670	B	26,730	C	26,730	C	27,290	C	27,290	C	27,800	C
H Street to K Street	4 Lanes Commercial Boulevard	33,750	29,570	C	30,490	D	30,730	D	31,500	D	32,130	D	32,130	D
K Street to L Street	4 Lanes Commercial Boulevard	33,750	26,600	C	27,030	C	27,030	C	27,320	C	27,320	C	27,320	C
South of L Street	4 Lanes Major Street	30,000	27,060	C	28,230	C	28,230	C	28,680	C	28,680	C	28,680	C
Street A														
H Street to Street C	4 Lanes Class I Collector	22,000	–	–	14,800	A	14,800	A	17,930	B	17,930	B	18,040	B
Street C to J Street	4 Lanes Class I Collector	22,000	–	–	17,290	B	17,290	B	21,040	C	21,040	C	21,090	C
J Street to Street B	2 Lanes Class II Collector	12,000	–	–	–	–	–	–	7,170	A	7,170	A	7,170	A
Street B														
Street A to Bay Boulevard	2 Lanes Class II Collector	12,000	–	–	–	–	–	–	2,740	A	2,740	A	2,740	A
Street C														
Marina Parkway to Street A	2 Lanes Class II Collector	12,000	–	–	2,770	A	2,770	A	4,140	A	4,140	A	4,140	A
Street A to Bay Boulevard	2 Lanes Class II Collector	12,000	–	–	2,450	A	2,450	A	5,090	A	5,090	A	5,090	A

SOURCE: Kimley-Horn and Associates, Inc. 2006.
ADT = Average Daily Trips; LOS = Level of Service
Bold values indicate roadway segments operating at LOS E or F. Bold and shaded values indicate project direct impact.
Dashes indicate that road is not constructed in that scenario. Blank spaces indicate that road is reclassified.

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However, as compared to the Proposed Project, build-out of the Harbor Park Alternative would lessen the significant cumulative impact to the following segment:

- Marina Boulevard, between H Street and Street C (LOS E as compared to LOS F).

Project mitigation for impacted roadway segments under this alternative is identified in *Table 5.4-7*. Implementation of the mitigation measures in this table would reduce the potential impacts to below a level of significance.

Freeway Segment Analysis

Impacts to freeway segments resulting from development of the Harbor Park Alternative would be similar to the Proposed Project. As with the Proposed Project, under this alternative, all freeway segments would function at LOS F or worse for all phases. Direct project impacts only occur along the I-5 segment between SR-54 and E Street during both peak periods in Phase I. As identified for the Proposed Project (see *Chapter 6, Cumulative Impacts*), all other freeway segments would be cumulatively impacted. Because the freeway system is developed and managed by Caltrans, the City has only limited ability to affect the level of congestion on these roadways. However, as with the Proposed Project, fair-share participation by the Port and City in the I-5 Corridor Study conducted by Caltrans and SANDAG to address existing and future traffic conditions, needed improvements, a timeline for implementation of improvements, associated costs, coordination with local and regional transportation plans, and assurances of participation as required by mitigation measures identified in *Section 4.2, Traffic/Circulation*, reduces the significant impact but not to below a level of significance.

Parking

The parking summary for the Harbor Park Alternative from Phase I through Phase III is shown in *Table 5.4-8*. With the completion of Phases I through III, a total of approximately 15,000 parking spaces would be provided, which is an excess of approximately 200 parking spaces. All of the new parking spaces provided in Phase III would be located in the Sweetwater District. In addition, as with the Proposed Project, Parcel H-18 would provide extra parking that may be used by other uses within the study area as remote parking for appropriate consideration. Under the Harbor Park Alternative, the same amount of parking would be provided in Parcel H-18 as under the Proposed Project. This would provide an excess capacity of 200 parking spaces. Because more parking spaces would be provided than are required by the project, impacts would be similar to those identified for the Proposed Project and no significant impact would occur.

5.4.2.1 Traffic/Circulation and Parking Summary and Mitigation

Prior to implementation of proposed mitigation, significant direct and cumulative project impacts would be worse for the Harbor Park Alternative than for the Proposed Project at the following intersections:

- E Street/I-5 southbound off-ramp during the P.M. peak hour (Direct Impact, LOS F as compared to LOS E for the Proposed Project)
- H Street and Broadway during the P.M. peak hour (Cumulative Impact, LOS F as compared to LOS E for the Proposed Project).

The mitigation measures identified would restore traffic levels to LOS D or better, except at the H Street/Broadway intersection. Unlike the Proposed Project, the impact at the H Street/Broadway intersection would remain significant and unmitigable.

At build-out, the following significant direct and cumulative project impacts to road segments would be worse for the Harbor Park Alternative than for the Proposed Project:

- H Street, I-5 ramps to Broadway (Direct Impact, LOS E as compared to LOS D for the Proposed Project)
- J Street, Bay Boulevard to the I-5 ramps (Cumulative Impact, LOS E as compared to LOS D for the Proposed Project)
- Bay Boulevard, between C and J Streets (Cumulative Impact, LOS E as compared to LOS C for the Proposed Project).

TABLE 5.4-8
Harbor Park Alternative Parking Summary

Phase	Parcel	Land Use	Intensity[a]	Rate[b]	Parking Required	Parking Provided	Provided − Required
Sweetwater District							
III	S-1	Office	300 ksf	3 : ksf	900	900	
III	S-1	Cultural	50 ksf	1 : ksf	50	50	
I	S-2	Conference Hotel	400 rooms	1 : room	400	400	
III	S-3	Mixed-Use Commercial	120 ksf	4 : ksf	480	480	
III	S-4	Office	120 ksf	3 : ksf	360	360	
III	SP-3	Nature Center Parking	2.96 acres	:	100	100	
Subtotal					***2,290***	***2,290***	
Harbor District							
II	H-1	Resort Hotel	500 rooms	1 : room	500	500	
II	H-1/HW-06	Yacht Club/Relocated Berths[c]	200 berth	0.7 : berth	180	180	
II	H-3	Cultural	400 ksf	1 : ksf	400	200	−200
I	H-9	Retail/Commercial Recreation	100 ksf	4 : ksf	400	400	
	H-9	Existing Marina	200 berth	0.7 : berth	140	200	60
II	H-12	Restaurant	25 ksf	9.3 : ksf	233		−233
II	H-12	Ferry Terminal	1 site	20 : site	20		−20
I	H-13	Residential	918 DU	1.85 : DU	1,698	1,700	2
I	H-14	Residential	382 DU	1.85 : DU	707	710	3
I	H-15	Mixed-Use Office	210 ksf	3 : ksf	630	630	
I	H-15	Visitor Hotel	250 rooms	1.25 : room	313	313	
I	H-15	Retail	120 ksf	4 : ksf	480	480	
I	H-15	General Office	90 ksf	3 : ksf	270	270	
I	H-18	Office/Parking	100 ksf	3 : ksf	300	1,600	1,300
II	H-21	Retail	150 ksf	4 : ksf	600	250	−350
	H-21	Existing Marina	500 berth	0.7 : berth	350	350	
I	H-23	Hotel	1,500 rooms	1 : room	1,500	1,500	
II	H-23	Hotel	500 rooms	1 : room	500		−500
I	H-23	Hotel Restaurant	1,600 seats	0.11 : seats	176	176	
I	H-23	Conference Center	400 ksf	1.6 : ksf	640	640	
I	HP-01	Signature Park[d]	35.4 acres	12 : acre	425	472	47

TABLE 5.4-8 (Cont.)

I	HP-03	50-foot Baywalk	9.2 acres	4 : acre	37		−37
	HP-07	Existing Marina View Park	6.4 acres	12 : acre	76	76	
	HP-15	Existing Bayfront Park[e]	10.1 acres	12 : acre	180	180	
I	HP-28	H Street Pier	0.4 acres	12 : acre	5		−5
II	HP-28	H Street Pier	0.4 acres	12 : acre	5		−5
Subtotal					***10,764***	***10,827***	***63***
Otay District							
II	O-1	Residential	466 DU	1.85 : DU	862	870	8
II	O-1	Residential — Garden	135 DU	2 : DU	270	270	
II	O-1	Residential — Garden	99 DU	2 : DU	198	198	
II	O-3	RV Park	236 DU	1 : DU	236	236	
II	OP-1	South Park	23.65 acres	4 : acre	95	95	
II	OP-3	150-foot SDG&E ROW	28.36 acres			150	150
Subtotal					***1,661***	***1,819***	***158***
TOTAL					**14,714**	**14,936**	**221**

SOURCE: Kimley-Horn and Associates, Inc. 2006.
ksf = thousand square feet; DU = dwelling units
[a]The Intensity of each land use was provided by the Port of San Diego
[b]The parking rate was provided by the Port of San Diego
[c]H-1 includes a 10 ksf Community Boating Center to support the slips that generates a parking demand of 40 spaces.
[d]The Signature Park includes a 5,000-seat amphitheater, and the parking requirement rate for the amphitheater is equal to 0.34 spaces per seat; therefore, 1,700 spaces will be required to serve the amphitheater during special events.
[e]Parking includes 100 boat trailer spaces and 80 vehicle spaces.

5.4.3 Aesthetics/Visual Quality

In order to evaluate the aesthetics/visual quality impacts of the Harbor Park Alternative in relation to the Proposed Project, an evaluation of the Harbor Park Alternative against each aesthetics/visual quality threshold was conducted. *Section 5.4.3.1* provides an impact analysis, and *Section 5.4.3.2* provides a summary of impacts and mitigation pertaining to the Harbor Park Alternative.

The analysis below is based on the visual impact assessment prepared by KTU+A in June 2006 to assess the Proposed Project and two alternatives, including the Harbor Park Alternative. This study is included in *Appendix 4.4-1*. Existing site conditions as well as methodology and visual character definitions are discussed in *Section 4.4, Aesthetics/Visual Quality,* of this report.

5.4.3.1 Impact Analysis of the Harbor Park Alternative

Like the Proposed Project, the Harbor Park Alternative would substantially change background views from the north, including views from the Sweetwater Marsh NWR/Chula Vista Nature Center, and from across San Diego Bay. Additional public views altered by the project include on-site bay views, off-site bay views from the east, off-site bay views from the north, and gateway and scenic roadway views. Scenic landmarks within the project impact area include Bayside Park.

a. Sweetwater Marsh NWR

Visitors to the Sweetwater Marsh NWR/Chula Vista Nature Center have the highest sensitivity because they expect the visual environment within the refuge to be "natural." The focal point of development near the water's edge is the existing South Bay Boatyard/storage lot. Views would be slightly improved by replacing the existing boatyard with upgrades to the waterfront, including a resort hotel use on H-1. The RCC would be located on H-23, east of the marina and further from the Bay and the Sweetwater Marsh NWR, which would reduce impacts of this feature by locating it further from the shoreline. However, this beneficial aesthetic impact is counteracted via the development of S-2, which would bring development in the Sweetwater District closer to the Sweetwater Marsh and Chula Vista Nature Center compared to the Proposed Project. In the Harbor Park Alternative, both S-1 and S-2 would be developed. Similar to the Proposed Project, the Harbor Park Alternative would result in a significant impact to public views from the Sweetwater Marsh NWR/Chula Vista Nature Center.

b. Silver Strand

As with the Proposed Project, development of this alternative would dominate the public view and skyline and be visible at great lengths from the project site. Although the RCC would be

relocated to H-23 away from the shoreline, the Harbor Park Alternative would still result in a dramatic scale imbalance between the existing landform and structures and Proposed Project components. As compared to the Proposed Project, a more distant RCC would be combined with high-rise residential and other large-scale elements, such as the hotel proposed on S-2 and H-1. Similar to the Proposed Project, the Harbor Park Alternative would result in a significant impact to public views from the Silver Strand and would require mitigation.

c. Adjacent/On-Site Bay Views

The adjacent or on-site viewing locations of the Bay include important view corridors as follows: E, F, and J Streets; Marina Parkway (north to south); unobstructed views from the existing parks; and the I-5 overpass at J Street. Impacts to views along Marina Parkway would be greater as compared to the Proposed Project since the roadway would be located further east, obstructing views along the portion east of Parcel H-3. Views looking west from the portion of E Street adjacent to S-2 would be obstructed via development of this parcel, which is part of the signature park under the Proposed Project. Furthermore, building heights viewed from I-5 over the J Street corridor significantly encroach on views from this location. This is contrary to the goals and policies set forth in the PMP and City planning documents and would be significant.

In summary, the Harbor Park Alternative would result in a significant impact to adjacent/on-site Bay views from Marina Parkway, the E Street Corridor, and the I-5 overpass and would require mitigation. This finding is different from that of the Proposed Project, which identified a low impact to on-site Bay views, which is considered less than significant.

d. Off-Site Bay Views from the East

Views to the Bay across the Sweetwater District would be more obstructed as compared to the Proposed Project due to development on both S-1 and S-2. This development would contribute to blockage of views from the freeway flyover from SR-54 at I-5. The Harbor Park Alternative would result in development on S-3, S-4, S-1, and S-2, which together would partially block the view to the water. However, the distance between this view location and the proposed new building reduces their perceived size, and the vista is only visible from passing vehicles for a limited time. Regardless, this partial loss of Bay views would be considered a significant impact and would require mitigation. This impact would not result from the Proposed Project.

e. Off-Site Bay Views from the North

Waterfront views are considered from Pepper Park (located north of the Sweetwater Marsh NWR and Sweetwater River). Impacts from this location would be similar to that of the Proposed Project. The existing views of the water and existing marsh would not be compromised, and the change in horizon would be considered a less than significant impact.

Gateway and Scenic Roadway Views

- Bay Views from Marina Parkway: See adjacent/on-site Bay views above. Impact would be greater as compared to the Proposed Project since the roadway would be located further east, obstructing views along the portion of Marina Parkway east of Parcel H-3.
- Bay Views from E Street: See adjacent/on site Bay views above. Views looking west from the portion of E Street adjacent to S-2 would be obstructed via development of this parcel, which is part of the signature park under the Proposed Project.
- Bay Views from the I-5 Overpass at J Street: See adjacent/on-site Bay views above. This impact would be considered significant and would require mitigation.
- Bay Views from H and F Streets: The realignment of F Street would not affect the existing view corridor or view of the Bay, thus no impact would occur at this location. The H Street Corridor would be opened to provide views of the Bay and the new pier. Similar to the Proposed Project, there would be a less than significant impact from these locations.

f. Scenic Landmarks

The Harbor Park Alternative would result in substantial changes to the visual character of the existing Bayside Park. The development of a 35-acre park on Parcel HP-1 is considered a benefit to the overall visual quality of the site. This large shoreline park would create additional waterfront green spaces and connect to adjacent parcels both north and south along the water/wetlands. The Harbor Park Alternative would result in a less than significant impact on scenic landmarks.

g. Visual Impacts

Similar to the Proposed Project, the design character, scale, and form of the viewing scene would be adversely affected by the Harbor Park Alternative. Although the shoreline includes a 35-acre signature park, more distant views of the RCC would still contrast with the scale of adjacent buildings and surrounding natural character. Development on both S-1 and S-2 would contribute to the contrast between the natural areas and man-made areas. Overall, the Harbor Park Alternative would result in a significant impact to view quality. This finding is similar to that of the Proposed Project. As with the Proposed Project, impacts to this already urban area would not adversely impact the character of the site.

The height of the proposed structures in the Harbor Park Alternative would encroach on views when looking west from the I-5 overpass at J Street. The proposed building heights would be substantially larger than those currently on the site. Impacts to Bay views are considered significant from this location. The Harbor Park Alternative would significantly contrast with the

scale of the existing structures and semi-open character of the site, which is a similar impact to the Proposed Project. Impacts from this vantage point are similar to that of the Proposed Project. The introduction of high-rise residential structures where no buildings currently exist, as well as an RCC and residential towers that will dominate the view is a potentially significant impact.

The Harbor Park Alternative would generate artificial light during the evening and nighttime hours. Lighting impacts would be generated due to adjacency impacts to the Sweetwater Marsh NWR, increased use of reflective glasses, and impacts to nighttime views. Due to development on both S-1 and S-2, more light would be generated adjacent to the Sweetwater March NWR as compared to the Proposed Project. Adjacency impacts and impacts associated with reflective glass surfaces are addressed in the Biological Resources section. The Harbor Park Alternative would generate increased amounts of light that could affect nighttime views in the area. This impact would be significant, similar to the Proposed Project.

The building heights viewed from I-5 over the J Street corridor significantly encroach on views from this location. This impact would be inconsistent with the goals and policies set forth in the PMP and City planning documents and would therefore be a significant impact.

5.4.2.2 Aesthetics/Visual Quality Use Summary and Mitigation

The Harbor Park Alternative would result in significance impacts to aesthetics/visual quality greater than that of the Proposed Project as summarized in *Table 5.4-9* below. Mitigation measures applicable to the Proposed Project, as detailed in *Section 4.4, Aesthetics/Visual Quality,* would be required in order to reduce these impacts. Additional mitigation would be required to reduce impacts associated with the Harbor Park Alternative. Overall, the Harbor Park Alternative would result in a greater impact on visual quality as compared to the Proposed Project.

TABLE 5.4-9
Comparison of Aesthetics/Visual Quality Impacts

	Proposed Project	Harbor Park Alternative
Would the project have a substantially adverse effect on a scenic vista, public view, or public resources (such as a symbol or landmark)?	Yes: **Significant Impacts 4.4-1** through **4.4-5**	Greater (Same as Proposed Project, as well as significant impacts from Marina Parkway, the E Street Corridor, the I-5 overpass at J Street Corridor, and impacts due to loss of bay view at SR-54/I-5)
Would the project degrade the existing visual character or quality of the site and its surroundings?	No	No
Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Yes: **Significant Impact 4.4-6**	Similar
Would the project conflict with urban design guidelines in adopted plans and policies?	Yes: **Significant Impacts 4.4-7** and **4.4-8**	Similar:

5.4.4 Hydrology/Water Quality

In order to evaluate the Hydrology/Water Quality impacts of the Harbor Park Alternative in relation to the Proposed Project, an evaluation of the Harbor Park Alternative against each hydrology/water quality threshold was conducted. *Section 5.4.4.1* provides an impact analysis and *Section 5.4.4.2* provides a summary of impacts and mitigation pertaining to the Harbor Park Alternative.

The analysis is based on a hydrology, water quality, and sediments study prepared by MBC Applied Environmental Sciences and a Civil Engineering Technical Study prepared by Kimley-Horn and Associates, Inc. (*Appendix 4.5-1* and *4.5-2*).

5.4.4.1 Impact Analysis of the Harbor Park Alternative

The Harbor Park Alternative does not propose the direct use of groundwater during phases of the project, and permanent dewatering would be prohibited by on-site operations. In addition, the Harbor Park Alternative would reduce the amount of water running off the site despite the increase in impervious surfaces due to construction of new landscaped areas and parks. These findings are similar to the Proposed Project and impacts would be less than significant. As with the Proposed Project, however, construction-related dewatering in the Harbor Park Alternative would withdraw water from the aquifer, which may be contaminated depending on the location in the plan area. The potential to disturb contaminated soils and groundwater during construction activities would be significant.

The Harbor Park Alternative would result in development within the same footprint as that of the Proposed Project. The project site is within an area of a 500-year flood or an area protected by levees from a 100-year flood. Under the Harbor Park Alternative, no structures are within SP-1 and OP-2A, which are areas of potential inundation during a 100-year flood. These areas are protected by the Sweetwater Dam and channel system in the event of a 100-year flood. Avoiding development in this area ensures people or structures are not exposed to a significant risk of loss, injury, or death involving flooding. The project's location is protected from tsunamis by natural formations such as Coronado, the Silver Strand, and Point Loma. The impact from flooding or inundation from seiche, tsunami, or mudflow is similar to that of the Proposed Project and would be less than significant.

Mass grading of the site would be required for the Harbor Park Alternative. This alternative would require approximately 90,000 cubic yards less imported fill than required for the Proposed Project. The total fill required for this project is estimated to be 650,000 cubic yards. No streams or rivers would be altered by grading, and drainage would continue to flow toward structural controls before entering the Bay. Therefore, similar to the Proposed Project, the Harbor Park Alternative would have a less than significant impact on the existing drainage pattern of the site.

As with the Proposed Project, new development under this alternative would be required to comply with existing water quality regulations intended to avoid or reduce impacts to water quality. This includes all applicable regulations established by the U.S. EPA as set forth in the NPDES permit requirement for urban runoff and stormwater discharge. Temporary construction BMPs would be implemented and the project would be subject to the requirements of the RWQCB Permit No. CA 0108758.

Dredge and fill activities within the Bay for the Harbor Park Alternative would be identical to those of the Proposed Project. These activities would not restrict tidal flow; the tides would remain unchanged in the harbor. Similar to the Proposed Project, dredge and fill operations and in-water construction activities associated with improvements for the H Street Pier, the existing South Bay Boatyard Marina, and the realignment of the navigation channel could result in significant impacts to water quality and biological communities, including marine resources, if contaminated sediments are exposed, redistributed, or released into the water column. This would be a potentially significant impact.

The Harbor Park Alternative would result in water quality impacts similar to that of the Proposed Project. Although the impervious surface area would increase, the amount of runoff would decrease as a result of more mature landscape and better quality vegetation, which slows the flow rate of runoff. The Harbor Park Alternative would control the amount and quality of runoff through implementation of permanent source control and treatment control BMPs in compliance with specific Port and City SUSMP requirements as well as monitoring programs. BMPs applicable to the Harbor Park Alternative are the same as those for the Proposed Project as described in *Section 4.5, Hydrology/Water Quality*, of this report. The Harbor Park Alternative also proposes protection of the seasonal wetlands located north of Lagoon Drive in the Sweetwater District on S-2 that are considered environmentally sensitive via design and implementation of permanent BMP facilities adjacent these areas. Implementation of these measures would reduce potential polluted surface water runoff, groundwater, and Bay contamination to a level less than significant. The planned storm drain system is designed to accommodate the proposed Harbor Park Alternative.

The increased pedestrian activities and debris-generating businesses on the waterfront would increase the potential for wind-blown litter entering the Bay. In addition to pollutants carried in runoff, wind-blown litter would have the potential to result in significant impacts on Bay water quality. Although not expected to occur, a spill or unintentional discharge of fuel, lubricants, or hydraulic fluid from equipment used during construction activities could also impact water quality. These impacts are considered significant under both the Harbor Park Alternative and the Proposed Project.

Impacts would be similar to that of the Proposed Project. The Harbor Park Alternative would be required to comply with and implement the NPDES permit, City grading ordinances, and other relevant BMPs and codes during the planning, construction, and maintenance phases of the project which would mitigate impacts generated from erosion and sedimentation. These various ordinances and regulations assure that erosion and sedimentation would be minimized by addressing effluent limitation, the preparation and implementation of an SWPPP, and monitoring program and record keeping requirements.

Regardless of compliance with ordinances and regulations, in-water construction activities would result in suspension of sediments, which reduces water clarity, increases nutrients, and decreases dissolved oxygen available for marine organisms. Water quality and dissolved oxygen concentration would return to pre-construction conditions upon completion of these construction activities. This temporary impact would be significant under both the Harbor Park Alternative and the Proposed Project.

5.4.4.2 Hydrology/Water Quality Summary and Mitigation

The Harbor Park Alternative would result in significance findings similar to that of the Proposed Project as shown in *Table 5.4-10* below. All mitigation measures applicable to the Proposed Project and detailed in *Section 4.5, Hydrology/Water Quality,* would be required in order to reduce these impacts to below a level of significance.

TABLE 5.4-10
Comparison of Hydrology/Water Quality Impacts

	Proposed Project	Harbor Park Alternative
Would the project substantially deplete groundwater or interfere substantially with groundwater recharge?	No	No
Would the project alter an existing 100-year floodplain or place structures within a 100-year flood hazard area, which would impede or redirect flood flows?	No	No
Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, and/or expose people or structures to inundation by seiche, tsunami, or mudflow?	No	No
Would the project substantially alter the existing drainage pattern of the site or area, including through the alternation of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site?	No	No
Would the project degrade water quality or would violate any water quality standards or waste discharge requirements, resulting from a substantial increase in the rate or amount of polluted surface runoff?	Yes: **Significant Impact 4.5-1**	Similar
Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	No	No
Would the project result in pollution or contamination that may have an impact on human health and the environment, including the aquatic habitat, or impacts on biological communities?	Yes: **Significant Impacts 4.5-2**, **4.5-3**, and **4.5-4**	Similar
Would the project result in substantial erosion and subsequent sedimentation of water bodies?	Yes: **Significant Impact 4.5-5**	Similar

All phases of development of the Proposed Project are required to comply with federal, state, and local regulations, laws, and permitting requirements related to urban stormwater runoff. In addition, the following mitigation measures are required to reduce potential impacts to below significant:

5.4.5 Air Quality

In order to evaluate the Air Quality impacts of the Harbor Park Alternative in relation to the Proposed Project, an evaluation of the Harbor Park Alternative against each air quality threshold was conducted. *Section 5.4.5.1* provides an impact analysis and *Section 5.4.5.2* provides a summary of impacts and mitigation pertaining to the Harbor Park Alternative.

The technical analysis of potential air quality impacts was performed by RECON. Construction and operation emissions were calculated using the using the URBEMIS2002 Version 8.7.0 computer program (South Coast Air Quality Management District 2005). Air quality calculations can be found in *Appendix 4.6-3* of this report.

5.4.5.1 Impact Analysis of the Harbor Park Alternative

Similar to the Proposed Project, the Harbor Park Alternative would not conform to the planning assumptions that were used to generate the forecast of the region's ability to achieve the NAAQS. As noted, the current RAQS are based on the former General Plan. The current adopted General Plan accounted for development at the Chula Vista Bayfront. While the proposed land use changes for both the Proposed Project and Harbor Park Alternative would be different from the former General Plan (upon which growth projections used for the RAQS and SIP were based), the RAQS and SIP do account for air emissions associated with the current adopted General Plan. Emissions from area sources and energy use would be similar to the uses proposed in the former General Plan. The main source of emissions associated with the Proposed Project would be from vehicles. Given that the amount of traffic and associated vehicular emissions assumed in the Chula Vista General Plan Update are higher than the current Proposed Project and Harbor Park Alternative traffic and emissions, neither development alternative would be inconsistent with either the General Plan that served as the basis of the RAQS or with the growth assumptions in the RAQS and, therefore, would not result in a significant impact.

There are currently no air quality violations on or near the project site. Contributions to pollutants for which the area is currently in non-attainment is discussed below. Environmental effects of the Rohr Industries/Goodrich and the SBPP are also evaluated.

As discussed in *Section 4.6, Air Quality*, the region is in attainment for all criteria pollutants except ozone, PM_{10}, and for $PM_{2.5}$. The SDAB is non-attainment for the 8-hour federal ozone standard. For PM_{10}, the region has a federal designation of unclassifiable and is non-attainment

of the State of California standard, while the region is designated non-attainment for the State of California $PM_{2.5}$ standard.

Tables 5.4-11, *5.4-12*, and *5.4-13* show the projected quarterly emission levels for each pollutant resulting from each phase of construction. Grading activities were assumed to occur 22 construction days per month. The only control assumed during construction was watering three times per day to reduce dust and PM_{10} emissions. Otherwise, the default URBEMIS2002 parameters were used for equipment and other emissions. The model does not calculate $PM_{2.5}$ emissions. In addition, emission factors are not available for lead, and consequently, lead emissions are not calculated. The basin is currently in attainment of the state and federal lead standards. Furthermore, diesel fuel is not leaded. As seen in these tables, with the exception of sulfur dioxide, all pollutant emissions are projected to exceed applicable thresholds.

TABLE 5.4-11
Projected Construction Emissions by Year Phase I (tons/quarter)

Year	ROG	NO_x	CO	SO_2	$PM_{2.5}$	PM_{10}
2007	2.92	22.80	21.82	0.00	5.87	24.78
2008	22.67	158.80	177.53	0.00	5.81	6.56
2009	40.12	151.50	185.48	0.00	5.48	6.21
2010	22.63	144.15	187.81	0.00	4.94	5.58
2011	22.63	144.15	187.81	0.00	4.94	5.58
Significance Threshold	2.50	2.50	24.75	6.75	2.50	6.75

Source: RECON
ROG = Reactive Organic Gas; NO_X = nitrogen oxide; CO = carbon oxide; SO_2 = sulfur dioxide; PM_{10} = suspended particulates of 10 microns or less in diameter

TABLE 5.4-12
Projected Construction Emissions by Year Phase II (tons/quarter)

Year	ROG	NOx	CO	SO2	PM2.5	PM10
2010	22.73	144.58	191.49	0.00	4.94	5.58
2011	22.73	144.58	191.49	0.00	4.94	5.58
2012	22.73	144.58	191.49	0.00	4.94	5.58
2013	22.73	144.58	191.49	0.00	4.94	5.58
2014	42.61	144.65	192.88	0.00	4.95	5.60
Significance Threshold	2.50	2.50	24.75	6.75	2.50	6.75

Source: RECON
ROG = Reactive Organic Gas; NOX = nitrogen oxide; CO = carbon oxide; SO2 = sulfur dioxide; PM_{10} = suspended particulates of 10 microns or less in diameter

TABLE 5.4-13
Projected Construction Emissions by Year Phase III (tons/quarter)

Year	ROG	NOx	CO	SO2	PM2.5	PM10
2015	22.47	144.09	186.00	0.00	4.93	5.55
2016	22.47	144.09	186.00	0.00	4.93	5.55
2017	22.47	144.09	186.00	0.00	4.93	5.55
2018	22.47	144.09	186.00	0.00	4.93	5.55
2019	25.17	144.09	186.16	0.00	4.94	5.55
Significance Threshold	2.50	2.50	24.75	6.75	2.50	6.75

Source: RECON
ROG = Reactive Organic Gas; NOX = nitrogen oxide; CO = carbon oxide; SO2 = sulfur dioxide; PM_{10} = suspended particulates of 10 microns or less in diameter

As shown in *Tables 5.4-11* through *5.4-13*, construction activities would result in significant air quality impacts for each criteria pollutant except sulfur dioxide for each phase of the project and for PM_{10} after the first year of construction, during which rough grading occurs. Construction emissions are projected to exceed the standards for NOx, CO, $PM_{2.5,}$ and ROG for during each year of construction.

Table 5.4-14 compares the construction emissions for the Harbor Park Alternative and Proposed Project. The Harbor Park alternative has roughly the same construction emissions as the Proposed Project except for CO in Phase II, where the Harbor Park alternative represents increased emissions.

Operation impacts stem primarily from emissions from mobile sources, although area emissions (e.g., natural gas combustion) also contribute. *Table 5.4-15* provides the projected area and operational emissions in pounds per day for Phase I. As shown in this table, Phase I emissions are expected to exceed the standard for each criteria pollutant except SO_2. This would be a significant impact resulting primarily from the size of the project. Similar to the Proposed Project, this would be a significant impact.

TABLE 5.4-14
Harbor Park Alternative Comparison to Proposed Project (Construction Emissions in Tons per Quarter)

Year	ROG			NOx			CO			SO_2			$PM_{2.5}$			PM_{10}		
	Harbor Park Alternative	Proposed Project	Difference	Harbor Park Alternative	Proposed Project	Difference	Harbor Park Alternative	Proposed Project	Difference	Harbor Park Alternative	Proposed Project	Difference	Harbor Park Alternative	Proposed Project	Difference	Harbor Park Alternative	Proposed Project	Difference
Phase I																		
2007	2.92	2.93	0.01	22.80	22.95	0.15	21.82	21.85	0.03	—	—	—	5.87	5.88	0.01	24.78	24.78	0.00
2008	22.67	22.70	0.03	158.80	158.82	0.02	177.53	177.88	0.35	—	—	—	5.81	5.81	—	6.56	6.57	0.01
2009	40.12	42.27	2.15	151.50	151.53	0.03	185.48	186.12	0.64	—	—	—	5.48	5.48	—	6.21	6.23	0.02
2010	22.63	22.65	0.02	144.15	144.16	0.01	187.81	188.11	0.30	—	—	—	4.94	4.94	—	5.58	5.59	0.01
2011	22.63	22.65	0.02	144.15	144.16	0.01	187.81	188.11	0.30	—	—	—	4.94	4.94	—	5.58	5.59	0.01
Phase II																		
2010	22.73	22.61	(0.12)	144.58	144.35	(0.23)	191.49	188.87	(2.62)	—	—	—	4.94	4.94	—	5.58	5.55	(0.03)
2011	22.73	22.61	(0.12)	144.58	144.35	(0.23)	191.49	188.87	(2.62)	—	—	—	4.94	4.94	—	5.58	5.55	(0.03)
2012	22.73	22.61	(0.12)	144.58	144.35	(0.23)	191.49	188.87	(2.62)	—	—	—	4.94	4.94	—	5.58	5.55	(0.03)
2013	22.73	22.61	(0.12)	144.58	144.35	(0.23)	191.49	188.87	(2.62)	—	—	—	4.94	4.94	—	5.58	5.55	(0.03)
2014	42.61	34.12	(8.49)	144.65	144.39	(0.26)	192.88	188.67	(4.21)	—	—	—	4.95	4.96	0.01	5.60	5.57	(0.03)
Phase III																		
2015	22.47	22.43	(0.04)	144.09	143.87	(0.22)	186.00	185.63	(0.37)	—	—	—	4.93	4.93	—	5.55	5.54	(0.01)
2016	22.47	22.43	(0.04)	144.09	143.87	(0.22)	186.00	185.63	(0.37)	—	—	—	4.93	4.93	—	5.55	5.54	(0.01)
2017	22.47	22.43	(0.04)	144.09	143.87	(0.22)	186.00	185.63	(0.37)	—	—	—	4.93	4.93	—	5.55	5.54	(0.01)
2018	22.47	22.43	(0.04)	144.09	143.87	(0.22)	186.00	185.63	(0.37)	—	—	—	4.93	4.93	—	5.55	5.54	(0.01)
2019	25.17	24.66	(0.51)	144.09	143.87	(0.22)	186.16	185.77	(0.39)	—	—	—	4.94	4.93	(0.01)	5.55	5.54	(0.01)

Source: RECON
ROG = Reactive Organic Gas; NO_X = nitrogen oxide; CO = carbon oxide; SO_2 = sulfur dioxide; PM_{10} = suspended particulates of 10 microns or less in diameter

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TABLE 5.4-15
Projected Daily Area and Operations Emissions Phase I (pounds/day)

	ROG	NOx	CO	SO2	PM2.5	PM10
Area Source Emissions	57.47	48.32	46.62	0.00	0.12	0.12
Operation	483.46	512.73	5088.13	4.29	87.70	417.60
TOTAL	**540.93**	**591.05**	**5134.75**	**4.29**	**87.82**	**417.72**
STANDARD	55	55	550	150	55	150

ROG = Reactive Organic Gas; NO_X = nitrogen oxide; CO = carbon oxide; SO_2 = sulfur dioxide;
PM_{10} = suspended particulates of 10 microns or less in diameter

Phase II

Table 5.4-16 provides the projected area and operational emissions in pounds per day for Phase II. As with Phase I, the Phase II emissions are expected to exceed the standard for each criteria pollutant except SO_2, resulting in a significant impact. Note however, that PM_{10} emissions for this phase of the development nearly match the pounds per day emission standard. The Proposed Project does not result in impacts to PM_{10} during operation of Phase II.

TABLE 5.4-16
Projected Daily Area and Operations Emissions Phase II (pounds/day)

	ROG	NO_x	CO	SO_2	$PM_{2.5}$	PM_{10}
Area Source Emissions	33.02	26.23	26.83	0.00	.07	0.07
Operation	250.91	258.16	2558.47	2.13	43.53	207.28
TOTAL	**283.93**	**284.39**	**2585.30**	**2.13**	**43.60**	**207.35**
STANDARD	55	55	550	150	55	150

ROG = Reactive Organic Gas; NO_X = nitrogen oxide; CO = carbon oxide; SO_2 = sulfur dioxide;
PM_{10} = suspended particulates of 10 microns or less in diameter

Phase III

Table 5.4-17 provides the projected area and operational emissions in pounds per day for Phase III. Emissions projected for this Phase of development are not anticipated to exceed the standard for each criteria pollutant. As such, this would not be a significant impact for Phase III development.

TABLE 5.4-17
Projected Daily Area and Operations Emissions Phase III (pounds/day)

	ROG	NO_x	CO	SO_2	$PM_{2.5}$	PM_{10}
Area Source Emissions	4.59	2.10	4.09	0.00	.01	0.01
Operation	49.11	58.55	589.04	0.50	10.25	48.82
TOTAL	**53.70**	**60.65**	**593.13**	**0.50**	**10.26**	**48.83**
STANDARD	55	55	550	150	55	150

ROG = Reactive Organic Gas; NO_X = nitrogen oxide; CO = carbon oxide; SO_2 = sulfur dioxide;
PM_{10} = suspended particulates of 10 microns or less in diameter

Table 5.4-18 compares the area and operations emissions for the Harbor Park Alternative to the Proposed Project. This alternative has higher air emissions than the Proposed Project. As with the Proposed Project, the alternative exceeds the standard for each of the criteria pollutants except for SO_2.

TABLE 5.4-18
Comparison Projected Daily Area/Operations Emissions
All Phases Harbor Park Alternative (pounds/day)

	ROG	NO_x	CO	SO_2	$PM_{2.5}$	PM_{10}
Total Proposed Project	808.06	841.16	7448.08	6.42	131.60	625.93
Harbor Park Alternative	878.56	936.09	8313.18	6.92	141.04	670.90
STANDARD	55.0	55.0	550.0	150.0	55.0	150.0

ROG = Reactive Organic Gas; NO_X = nitrogen oxide; CO = carbon oxide; SO_2 = sulfur dioxide;
PM_{10} = suspended particulates of 10 microns or less in diameter

If the Harbor Park Alternative is approved, sensitive receptors would include the proposed residences and the RV park. The Harbor Park Alternative does not propose a use that would generate substantial pollutant concentrations at a location within or adjacent to the project. Sensitive receptors would be exposed to pollutant concentrations in excess of the CAAQS and NAAQS due to regional air pollutant concentrations, to which the alternative contributes. Similar to the Proposed Project, because the SDAB is not in compliance with the standards for criteria pollutants for ozone, PM_{10}, and the state standard for $PM_{2.5}$, the contribution to the particulates and to ozone precursors would contribute to the exposure of sensitive receptors to substantial pollutant concentrations.

A CO hotspot analysis performed for the Proposed Project concluded that 1-hour and 8t-hour CO concentrations at identified intersections are well below the state standard. This conclusion holds true for the Harbor Park Alternative as well.

There are two major sources of pollution within the Bayfront project area: (1) Rohr Industries/Goodrich, and (2) South Bay Power Plant (SBPP). A health risk assessment of these facilities indicates that both facilities are below the Public Notification and Risk Mitigation

levels. Residential uses associated with the Harbor Park Alternative are situated on parcels identical to that of the Proposed Project.

Similar to the Proposed Project, there are no uses proposed by the Harbor Park Alternative that would generate objectionable odors. Impacts would be less than significant.

The Harbor Park Alternative would have similar GHG emissions as the Proposed Project. The mitigation measures applicable to the Proposed Project would be applicable to this Alternative. The project design features would also be part of the Harbor Park Alternative and would reduce impacts to below a level of significance.

5.4.5.2 Air Quality Summary and Mitigation

The Harbor Park Alternative would result in significance findings similar to that of the Proposed Project as shown in *Table 5.4-19* below. All mitigation measures applicable to the Proposed Project as detailed in *Section 4.6, Air Quality,* would be required in order to reduce air quality impacts. Despite implementation of mitigation measures, impacts to air quality would remain significant. Similar to the Proposed Project, the Harbor Park Alternative would not avoid or substantially lessen the significant effects of the Proposed Project on air quality.

TABLE 5.4-19
Comparison of Air Quality Impacts

	Proposed Project	Harbor Park Alternative
Would the project conflict with or obstruct implementation of the applicable air quality plan (e.g., RAQs)?	No	Similar
Would the project violate any air quality standards or contribute substantially to an existing or projected air quality violation?	No	No
Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	Yes: **Significant Impacts 4.6-1** through **4.6-5**	Similar
Would the project expose sensitive receptors to substantial pollutant concentrations, such as ozone or respirable particulates (PM_{10})?	Yes: **Significant Impact 4.6-6**	Similar
Would the project include residential housing within 1,000 feet of a plant or any other toxic air emitting facility?	No	No
Would the project create objectionable odors affecting a substantial number of people?	No	No
Would the project conflict with or obstruct goals or strategies of the California Global Warming Solutions Act of 2006 (AB 32) or related Executive Orders?	Yes: **Significant Impact 4.6-7**	Similar
Would the project result in substantially increased exposure of the project from the potential adverse effects of global warming identified in the California Global Warming Solutions Act of 2006 (AB 32)?	No	No

5.4.6 Noise

In order to evaluate the noise impacts of the Harbor Park Alternative in relation to the Proposed Project, an evaluation of the Harbor Park Alternative against each noise threshold was conducted. *Section 5.4.6.1* provides an impact analysis and *Section 5.4.6.2* provides a summary of impacts and mitigation pertaining to the Harbor Park Alternative.

The analysis presented below is based on information presented in the Noise Technical Report for the Chula Vista Bayfront Master Plan prepared by RECON in June 2006. This document is provided as *Appendix 4.7-1* to this report. RECON conducted noise measurements to determine the variability of noise throughout the study area. Eight daytime noise measurements throughout the study area were conducted, as well as eight daytime noise measurements at the South Bay Power Plant and three daytime measurements at the Goodrich facility (see *Appendix 4.7-1*). In order to evaluate noise generated from traffic, traffic volumes were obtained from the traffic report prepared for the project by Kimley Horn and Associates Inc. (*Appendix 4.2-1*).

5.4.6.1 Impact Analysis of the Harbor Park Alternative

Noise impacts under the Harbor Park Alternative could result from traffic noise, the South Bay Power Plant, the Goodrich facilities, and construction activities.

a. Traffic Noise

Traffic noise impacts would result from (1) future traffic on existing area roads and new roadways constructed on site, and (2) the addition of traffic on roads located off the project site.

i. On-Site Roads – Direct Impacts

Similar to the Proposed Project, noise levels are projected to be greater than 65 CNEL across most of the project site, with the greatest noise levels occurring adjacent to I-5. Residential uses adjacent to the circulation element roadways proposed in the Harbor and Otay Districts would be exposed to noise levels greater than 65 CNEL. This impact would be significant.

Also similar to the Proposed Project, exterior noise levels are greater than CNEL for the Harbor Park Alternative. Therefore, interior noise levels due to exterior sources could exceed 45 CNEL with standard construction practices. This impact would be significant.

ii. Off-Site Roads

The greatest increase in noise at project build-out, located on F Street between Woodlawn Avenue and Broadway, is 2.9 dB(A). This increase in noise due to traffic on off-site roadways is less than 3dB(A) and is therefore not significant.

b. Stationary Sources

i. Goodrich Facility

Similar to the Proposed Project, there are no residential uses proposed within 1,000 feet of the Goodrich facility. Noise levels are within daytime and nighttime noise ordinance standards and impacts would be less than significant.

ii. Construction Noise

Construction impacts would be similar to that of the Proposed Project. Three significant impacts are identified as follows:

- The construction of off-site improvements, such as water and sewer mains, that could affect residences would occur in Phase I. These improvements would occur within J Street between Bay Boulevard and Broadway, L Street between Bay Boulevard and Broadway, and Broadway between J Street and Main Street. Construction activities could affect residents in those areas and the impact would be significant. Other off-site roadway improvements are not adjacent to residential uses.
- The project would construct residential and park uses near the center of the project site in Phase I. During Phases II through IV, these uses could be exposed to construction noise levels of 85 dB(A) Leq., depending upon the location of the construction relative to the sensitive user. Construction noise during these subsequent phases of the project could affect the sensitive uses established through the development of Phase I. Subsequent analysis of construction noise impacts would be needed during the CEQA review process of Phases II, III, and IV. Construction noise impacts are considered significant.
- Construction noise adjacent to the refuge in the Sweetwater District would be considered significant during breeding season. The noise impacts to the Sweetwater Marsh NWR are discussed further in *Section 4.8, Terrestrial Biological Resources*.

The Harbor Park Alternative would not generate or expose persons to excessive groundborne vibration or groundborne noise levels at build-out. The project does propose possible pile driving activities associated with the marina and pier designs that could impact marine habitat; as indicated in *Section 4.9, Marine Biological Resources*, pile driving noise/vibration impacts to fish would not be significant.

Similar to the Proposed Project, the increase in noise resulting from the Harbor Park Alternative relative to the existing traffic would be less than 3 dB at project build-out. As such, the Harbor Park Alternative would not result in a substantial permanent increase in ambient noise levels and impacts would be less than significant.

As with the Proposed Project, significant temporary noise increases would result from construction activities under the Harbor Park Alternative. These impacts would be more severe under the Harbor Park Alternative, however, due to construction in the Sweetwater District on Parcels S-1 and S-2.

5.4.6.2 Noise Summary and Mitigation

The Harbor Park Alternative would not avoid or reduce the significant noise impacts associated with the Proposed Project as shown on *Table 5.4-20* below. All mitigation measures applicable to the Proposed Project as detailed in *Section 4.7, Noise* would be required in order to reduce noise impacts associated with the Harbor Park Alternative.

TABLE 5.4-20
Comparison of Noise Impacts

	Proposed Project	Harbor Park Alternative
Would the project expose persons to or generate noise levels in excess of standards established in the City of Chula Vista General Plan or noise ordinance, or applicable standards of other agencies?	Yes: **Significant Impacts 4.7-1** through **4.7-11**	Similar
Would the project expose persons to or generate excessive groundborne or waterborne vibrations, or noise levels?	No	No
Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	Yes: **Significant Impacts 4.7-2**, **4.73**, **4.7-4**, **4.7-6**, **4.7-7**, and **4.7-8**	No
Would the project result in substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	Yes: **Significant Impacts 4.7-1**, **4.75**, **4.7-9**, **4.7-10**, and **4.7-11**	Greater (Same as Proposed Project, but construction noise impact is more severe due to construction on S-1 and S-2.)

5.4.7 Biological Resources (Terrestrial and Marine)

In order to evaluate the impacts to biological resources of the Harbor Park Alternative in relation to the Proposed Project, an evaluation of the Harbor Park Alternative against each terrestrial and marine biological resource threshold was conducted. *Section 5.4.7.1* provides an impact analysis and *Section 5.4.7.2* provides a summary of impacts and mitigation pertaining to the Harbor Park Alternative.

5.4.7.1 Impact Analysis of the Harbor Park Alternative

a. Terrestrial Biological Resources

i. Direct Impacts to Sensitive Wildlife: Port and City Jurisdiction

All Phases:

Both the Proposed Project and the Harbor Park Alternative would result in significant impacts to Raptors, the Western Burrowing Owl, and birds protected by the MBTA as follows:

- Raptors: Significant impacts would result from grading and construction of the site, which would modify existing habitat that supports nesting and foraging raptors. Direct impacts to nesting raptors due to the removal of an active nest would be significant.
- Western Burrowing Owl: Grading and construction activities during development of the Otay District could result in the potential loss of western burrowing owls and/or their nests. This impact would be significant.
- Birds Protected by the MBTA: There is the potential for a number of birds protected by the MBTA to nest within the open space and tress in all three districts. Construction and grading activities could result in removal of active nests during breeding season. This impact would be significant.

ii. Direct Impacts to Sensitive Wildlife: City Jurisdiction

All Phases:

The project would potentially impact MSCP-covered species within the City's jurisdiction including the salt marsh skipper, orange throated whiptail, northern harrier, Cooper's hawk, peregrine falcon, light-footed clapper rail, long-billed curlew, western burrowing owl, and Belding's savannah sparrow. This impact would be significant.

iii. Direct Impacts to Sensitive Plants: Port and City Jurisdiction

The Port does not have any local policies or ordinances protecting biological resources. Compliance with the City's MSCP HLIT Ordinance is discussed below.

Terrestrial and marine biology impacts associated with selection of the Harbor Park Alternative would be similar to those identified for the Proposed Project since the development footprint is generally the same (see *Section 4.8, Terrestrial Biological Resources,* of this report). Mass grading of most of the Harbor and Sweetwater Districts would occur in Phase I. Remaining areas of the Harbor and Otay Districts would be graded in Phase II. Improvements to the marina and navigation channel would be the same.

Terrestrial Resources. The location of the RCC, proposed for Parcel H-23 under this alternative, alters the road configuration through the northern portion of the Harbor District from the layout in the Proposed Project. Under this alternative, the relocation of the RCC would result in a minor reduction in impacts to biological resources (0.01 acre less impact to disturbed seasonal pond, 0.1 acre less impact to southern coastal marsh) as compared to the Proposed Project. Total impacts to sensitive vegetation communities are listed below.

The RCC would be further from the waterfront under this alternative, which could result in fewer bird strikes. However, indirect impacts to the neighboring Sweetwater Marsh NWR could result from development of a conference hotel on S-2 with 250 to 400 rooms, with structures up to 60 feet in height. As this hotel would take the place of the Proposed Project Signature Park, there would be more human activity at this location, resulting in greater noise and lighting impacts over longer periods each day.

As with the Proposed Project, management practices, including (1) BMPs to control the unintentional release of excavated sediments and water into the local environment, and (2) operational procedures to minimize disturbance impacts to birds, would reduce temporary impacts related to development of the Harbor Park Alternative.

Significant impacts would result from grading and construction of the site, which would modify existing habitat that supports sensitive species, including nesting and foraging raptors. A number of birds protected by the MBTA as well as endangered or threatened species could or do occur on site. In addition, construction of a new pier and replacement/relocation of docks would result in an approximate 2-acre reduction to surface water foraging habitat.

Significant impacts within the City's jurisdiction relative to covered species under the City's MSCP, and preserve adjacency management issues that focus on reducing indirect impacts by limiting drainage, overspill of lighting and noise into the Preserve, use of non-invasives, and public access in sensitive preserve areas, would also be the same as for the Proposed Project. In

addition to other measures, impacts would be mitigated by implementation of mitigation measures as discussed in *Section 4.8, Terrestrial Biological Resources,* of this report.

Total impacts within the City and Port's jurisdictions to 7.89 acres disturbed Diegan coastal sage scrub, 0.11 acre mulefat, and 9.13 acre disturbed seasonal pond would be mitigated to below a level of significance.

Jurisdictional Wetlands. The Harbor Park Alternative would impact a total of 59.44 acres of USACE jurisdictional waters within all three districts and both the Port and City of Chula Vista's jurisdiction as compared to 64.34 acres for the Proposed Project. Significant impacts to 61.96 acres of USACE jurisdictional waters due to harbor and marina reconfiguration would be identical to the Proposed Project and would be reduced to below a level of significance with implementation of mitigation. As for the Proposed Project, impacts to seasonal ponds would be exempt from USACE jurisdiction.

As for the Proposed Project, impacts to 1.19 acres of CDFG jurisdictional resources would occur in the Port's jurisdictional area only, within the Harbor and Otay Districts. These impacts would occur during Phase II due to permanent and temporary removal of riparian habitat. Significant impacts would be reduced to below a level of significance with implementation of mitigation.

As for the Proposed Project, impacts to CCC wetlands have been avoided to the maximum extent practicable. Some of the waterways mapped have been identified as potential CCC wetlands that may be under the jurisdiction of the Coastal Commission. Identification of these areas as CCC wetlands require documentation of ponding for a minimum of 7 consecutive days, and there is currently no indication that ponding of that duration occurs; therefore, identification of CCC jurisdiction has not been made. In addition, the Otay District contains areas formerly occupied by an industrial facility that may not be subject to CCC jurisdiction. Extension of E Street in the Sweetwater District within the road easement and adjacent Parcel S-1 would result in a permanent direct impact to 0.08 acre of CCC wetland and shading impacts due to bridge construction on E Street over the inlet connecting the bay to the F & G Street Marsh, J Street Channel, and Street B would be significant. Implementation of mitigation measures would reduce impacts to a less than significant level. Removal of riprap and placement of bulkhead for marina improvements would be consistent with the Coastal Act but results in significant biological impacts. As with the Proposed Project, implementation of mitigation measures detailed in *Section 4.8, Terrestrial Biological Resources,* would reduce the impact to less than significant.

The establishment of an ecological buffer on Parcel OP-2A would result in temporary impacts to 0.05 acre of CCC wetlands, 0.04 acre of potential CCC wetlands, and 1.50 acres of former industrial areas in the process of remediation. Impacts to the 0.05 acre of CCC wetlands would be significant. The impacts to the 1.54 acres of former industrial areas in the process of

remediation proposed for roads, grading, and drainage improvements would only be significant if the CCC asserts jurisdiction. As for the Proposed Project, implementation of mitigation measures would reduce the impacts to below a level of significance. Impacts for restoration purposes and rechannelization of the Telegraph Creek Channel are allowed under the Coastal Act.

Within the City's jurisdiction, impacts would be identical to the Proposed Project and relate to construction of bridges over the HP-5 drainage ditch in the Harbor District, E Street improvements adjacent to SP-4 in the Sweetwater District, or resources subject to protection under the City's Wetland Protection Program. Mitigation measures discussed in *Section 4.8, Terrestrial Biological Resources,* identified for the Proposed Project would reduce the impacts to below a level of significance. Impacts under the jurisdiction of the RWQCB would likewise be identical and would be mitigated to below a level of significance. Finally, indirect impacts to preserve lands and refuges from development within the City's jurisdiction would result in a significant indirect impact. Development within the City's jurisdiction would be required to conform to the City's adjacency guidelines through implementation of mitigation measures described in *Section 4.8, Terrestrial Biological Resources*, which would reduce the impact to below a level of significance.

As with the Proposed Project, proposed development on the Bayfront may result in increased bird mortality through bird strikes. Implementation of mitigation measures for the Proposed Project would similarly reduce impacts under the Harbor Park Alternative to below a level of significance by implementing design measures for lighting, glass and reflection, building articulation, and landscaping.

Implementation of the mitigation measures identified in *Section 4.8, Terrestrial Biological Resources,* would reduce the significant impacts to terrestrial biological resources and wetlands to a level below significance.

b. Marine Biological Resources

As with the Proposed Project, direct impacts to eelgrass in open bay waters from phased construction of the proposed pier, modifications to the marina, and realignment of the navigation channel as well as indirect impacts from shading due to construction of the pier, would be significant. Similar to the Proposed Project, implementation of mitigation measures detailed in *Section 4.9, Marine Biological Resources,* would provide replacement eelgrass habitat at a 1.2:1 ratio to reduce impacts to less than significant. No permanent impacts to the eelgrass community in the project area would occur. Mitigation would initially increase the area of eelgrass in the South Bay and is expected to fully recover to naturally occurring densities within 5 years of transplantation. No unavoidable adverse impacts to marine biological resources as a result of the Harbor Park Alternative are expected.

Similar to the Proposed Project, impacts to salt marsh and mudflats from Phase III construction of bulkhead in the commercial harbor on Parcel HW-3, temporary impact to water quality from construction of the H Street Pier, direct impacts from Phase III dredging at the South Bay Boatyard, and indirect lighting impacts on marine resources from construction and operation of project elements would be significant. Implementation of mitigation measures identified in *Section 4.9, Marine Biological Resources,* of this report would reduce these impacts to below a level of significance.

5.4.7.2 Biological Resources Summary and Mitigation

In summary, the Harbor Park Alternative would not avoid or substantially reduce the significant biological effects of the Proposed Project. The impacts of the Proposed Project would be similar for the Harbor Park Alternative. Implementation of mitigation measures detailed in *Section 4.9, Marine Biological Resources,* would reduce these impacts to below a level of significance.

5.4.8 Cultural Resources

In order to evaluate the cultural resources impacts of the Harbor Park Alternative in relation to the Proposed Project, an evaluation of the Harbor Park Alternative against each cultural resources threshold was conducted. *Section 5.4.8.1* provides an impact analysis and *Section 5.4.8.2* provides a summary of impacts and mitigation pertaining to the Harbor Park Alternative.

The analysis presented below is based on information presented in the cultural resources survey of the Proposed Project site in April and November 2005. The Harbor Park Alternative would result in the same impact area the Proposed Project; therefore, the findings of the technical report are applicable to the Harbor Park Alternative as well as the Proposed Project.

5.4.8.1 Impact Analysis of the Harbor Park Alternative

Two sensitive resources were identified within the project boundary: 1) Prehistoric archaeological site, CA-SDI-5,512, which was determined by Caltrans not to be significant; and 2) the Coronado Belt Line ROW, which would not be altered in such as way as to change the basic integrity or any defining characteristics or to preclude it from future considerations for listing as a historic resource. Therefore, as with the Proposed Project, impacts would be less than significant.

There are no cemeteries on the project site and no known or expected human remains within the project boundary. The possibility of encountering human remains on the project site is low. As with the Proposed Project, impacts would be less than significant.

5.4.8.2 Cultural Resources Summary and Mitigation

As with the Proposed Project, the Harbor Park Alternative would not result in impacts to cultural resources as shown on *Table 5.4-21* below. No significant impacts were identified and no mitigation measures are provided.

TABLE 5.4-21
Comparison of Cultural Resources Impacts

	Proposed Project	Harbor Park Alternative
Would the project cause a substantial adverse change in the significance of a historical or archaeological resource as defined in CEQA Guidelines Section 15064.5, including resources that are eligible for the CRHR and the National Register of Historic Places; and resources that are locally designated as historically significant; or does the City of Chula Vista find the resource historically significant based on substantial evidence?	No	No
Would the project disturb any human remains, including those interred outside of formal cemeteries?	No	No

5.4.9 Paleontological Resources

In order to evaluate impacts to Paleontological Resources as a result of the Harbor Park Alternative in relation to the Proposed Project, an evaluation of the Harbor Park Alternative against each paleontological threshold was conducted. *Section 5.4.9.1* provides an impact analysis and *Section 5.4.9.2* provides a summary of impacts and mitigation pertaining to the Harbor Park Alternative.

The analysis presented below is based on information contained in the Paleontological Resource Assessment for the Chula Vista Bayfront Master Plan Technical Report prepared by the Department of Paleoservices at the San Diego Natural History Museum (*Appendix 4.11-1*). The Harbor Park Alternative would result in the same impact area as the Proposed Project; therefore, the findings of the technical report are applicable to the Harbor Park Alternative as well as the Proposed Project.

5.4.9.1 Impact Analysis of the Harbor Park Alternative

Bedrock deposits of the Bay Point Formation occur in the northeastern portion of the Sweetwater District. More precisely, where this formation underlies low coastal mesa adjacent to Bay Boulevard, there would be the potential for significant impacts to sensitive paleontological resources to occur during construction. The material and formation that underlie the Harbor and Otay Districts possess no paleontological resource value. The Harbor Park Alternative differs from the Proposed Project in that both Parcels S-1 and S-2 would be developed. The Harbor Park Alternative would therefore involve a greater grading and excavation area in the Sweetwater

District. While no significant impacts to paleontological resources were identified for the Proposed Project, the Harbor Park Alternative could result in impacts to paleontological resources in the Sweetwater District over a greater area than that of the Proposed Project.

5.4.9.2 Paleontological Resources Summary and Mitigation

The Harbor Park Alternative would not avoid or substantially lessen the significant effects on paleontological resources of the Proposed Project, as shown on *5.4-22* below. The Harbor Park Alternative would result in significant impacts to paleontological resources during construction and grading activities on parcels underlain by the Bay Point Formation in the Sweetwater District.

TABLE 5.4-22
Comparison of Paleontological Resources Impacts

	Proposed Project	Harbor Park Alternative
Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No	Yes

5.4.10 Hazards and Hazardous Materials/Public Safety

In order to assess hazards/public safety impacts as a result of the Harbor Park Alternative in relation to the Proposed Project, an evaluation of the Harbor Park Alternative against each hazards/public safety threshold was conducted. *Section 5.4.10.1* provides an impact analysis and *Section 5.4.10.2* provides a summary of impacts and mitigation pertaining to the Harbor Park Alternative. A complete listing of sources used to formulate the analysis below is presented in *Section 4.12, Hazards and Hazardous Materials/Public Safety*, of the EIR. The sources applicable to the Harbor Park Alternative are identical to the sources used for the Proposed Project.

5.4.10.1 Impact Analysis of the Harbor Park Alternative

Land uses that use, store, and transport hazardous materials currently exist on and adjacent to the project site. Existing and proposed land uses within the project boundary must obtain permits from appropriate regulatory agencies and comply with all federal, state, and local laws that govern the facilities' routine transport, use, and disposal of hazardous materials. Compliance with permits and regulations ensures that potential impacts are less than significant.

The SBPP, the existing South Bay Boatyard, Chula Vista Harbor, and the Goodrich facility (off site) are the major facilities on or adjacent to the project site that use hazardous materials during operation. Toxic and/or caustic substances would be used by the proposed land uses and water

related activities during both construction and operation of the project. Conformance to regulatory standards and implementation of Cleanup and Abatement Order programs would ensure less than significant impacts.

As with the Proposed Project, the Harbor Park Alternative would not result in impacts to schools within 0.25 mile of an existing or proposed school. Although schools do exist within 0.25 mile of the project site, compliance with all applicable federal, state, and local laws, regulations, and permitting requirements for the proposed operations would ensure any impacts to nearby schools to be less than significant. In addition, the Harbor Park Alternative is not located within 2 miles of an airport land use plan or where such a plan has been adopted.

As with the Proposed Project, there is the potential that hazardous materials would be encountered within or adjacent to the project boundaries during grading or excavation in the vicinity of several on-site areas of concern and three off-site areas of concern. Although excavation, demolition, and construction activities are short-term, the potential to encounter contamination during such activities is considered a significant impact. Due to the previous uses of the project site, both existing and undocumented underground storage tanks (USTs) are located throughout the site and may require removal during construction activities. The potential to encounter contaminated soils associated with the removal of identified and unidentified USTs is considered a significant impact.

There exists the potential to encounter contamination on lands in the Sweetwater District formerly used for agricultural purposes, several areas of concern within the boundaries of the former Goodrich South Campus facility in the Harbor District, and areas of concern within the boundaries of the SBPP in the Otay District during excavation activities. This impact is considered significant and would require mitigation.

Samples from groundwater monitoring wells, located adjacent to the harbor basin in Marina Parkway and Sandpiper Way, revealed contaminated groundwater beneath parcels proposed for development. Pile driving and dewatering during construction could result in potential hydraulic transfer of contaminants if not conducted in accordance with site-specific engineering recommendations. Dewatering to depths greater than 10 feet could result in the potential for cross-contamination of water zones (between A and UB). This would be a significant impact similar to the Proposed Project.

Implementation of specific design measures will be required to avoid potential impacts from cross-contamination of groundwater during dewatering activities. If contaminants have extended in the subtidal areas of the harbor basin, dredging fill and bay sediment would potentially upset and suspend or release hazardous contaminants into the marine environment. The suspension and/or release of contaminants in the water could create a significant hazard to the marine

resources living at this location and in the surrounding area. As with the Proposed Project, this would be a significant impact.

It is possible that other areas of contamination exist within the boundaries of the site that have not been identified to date. Residual soil and/or groundwater contamination has been identified in all districts on and off site and requires further definition. This would be a significant impact.

5.4.10.2 Hazards and Hazardous Materials/Public Safety Summary and Mitigation

Implementation of the Harbor Park Alternative would not avoid or substantially reduce the significant effects from hazardous materials of the Proposed Project. The Harbor Park Alternative would result in impacts similar to the Proposed Project as shown on *Table 5.4-23* below. Implementation of mitigation measures detailed in *Section 4.12, Hazards and Hazardous Materials/Public Safety*, would reduce these impacts to below a level of significance.

TABLE 5.4-23
Comparison of Hazards and Hazardous Materials/Public Safety Impacts

	Proposed Project	Harbor Park Alternative
Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Yes: **Significant Impacts 4.12-1** through **4.12-20**	Similar
Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Yes: **Significant Impact 4.12-2**	Similar
Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	No	No
Is the project on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, a significant hazard to the public or the environment would be created?	Yes: **Significant Impacts 4.12-1** through **4.12-20**	Similar
Is the project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport of public use airport and would result in a safety hazards for people residing or working in the project area?	No	No
Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	No	No

5.4.11 Public Services

In order to assess impacts to public services associated with the Harbor Park Alternative in relation to the Proposed Project, an evaluation of the Harbor Park Alternative against each public

services threshold was conducted. *Section 5.4.11.1* provides an impact analysis and *Section 5.4.11.2* provides a summary of impacts and mitigation pertaining to the Harbor Park Alternative.

Assessment of demand for services is based upon the thresholds established by the City's Gross Management Oversight Commission.

5.4.11.1 Impact Analysis of the Harbor Park Alternative

a. Fire Services

Similar to the Proposed Project, the Harbor Park Alternative would increase the demand for fire protection services because of the change in land use from generally underutilized to developed. The City's Fire Department considers the Bayfront area to be a geographic location that is underserved by the fire station network. While the Proposed Project would include construction of a new fire station on H-17, the Harbor Park Alternative does not include a new fire station. This alternative would therefore contribute to an exacerbation of the underserved condition of the area as it relates to fire protection services. The Port is precluded by law from providing municipal facilities (including fire protection facilities) on Port land. Under the Harbor Park Alternative, the City has not agreed to acquire Parcel H-17 from the Port, and no suitable location for a new fire facility has been identified. A significant impact on fire protection services would continue to exist under the Harbor Park Alternative.

This impact to fire services under the Harbor Park Alternative is greater than the Proposed Project and would result in a significant impact.

b. Police Protection

The Police Department currently maintains 1.07 sworn employees per 1,000 residents. The Harbor Park Alternative has the same number of residential units and the same projected population. As such, the number of officers needed to serve this alternative is the same as the Proposed Project. With both the Proposed Project and this alternative, demand for police services would increase in order to maintain response times. Up to six additional police officers with related equipment may be needed to serve the project area. The additional staffing required will be provided by the City and will be funded by revenues generated by the project. Impacts to police protection services would therefore be less than significant. No additional police facilities are needed to serve the project. Similar to the Proposed Project, the Harbor Park Alternative would not result in a significant impact on police facilities.

c. Parks and Recreation

Park land requirements are established in the City's Municipal Code Section 17.10.040 for property within the City's jurisdiction. This requires park acreage dedication and improvement based on development type. Multifamily dwelling units are required to dedicate 341 square feet of parkland for each unit, or approximately 3.0 acres per 1,000 residents. Residential and transient motels/hotels are required to dedicate 196 square feet of parkland for each unit. The Harbor Park Alternative would exceed the minimum parkland requirement by designating approximately 120 acres of parkland, which is greater than the 80.94 acres under the Proposed Project. No parkland is required outside of the Harbor Park Alternative to meet the established standard.

The Harbor Park Alternative would result in the provision of a relatively greater acreage of parkland than the Proposed Project. As with the Proposed Project, development of the Harbor Park Alternative would result in temporary, short-term significant impacts to park and recreation levels of service due to temporary closure of existing area parks during project construction. The introduction of residential units and hotel rooms within the City's jurisdiction in the project area would result in potentially significant impacts due to an increase in demand for developed parkland and recreation facilities.

d. Schools

The estimated number of students to be generated by the Harbor Park Alternative is based on the current student generation factors used by each of the school districts. As indicated in *Table 5.4-24* at build-out, the Harbor Park Alternative is expected to generate a net increase of approximately 1,092 students, including approximately 700 elementary students, 196 middle school students, and 196 high school students. This is the same as the Proposed Project.

TABLE 5.4-24
Student Generation Rates for the Harbor Park Alternative

Grades	Generation Rate	Multifamily Dwelling Units	Total Students Generated
Phase I			
K thorugh 6	0.350	1,300	455.0
7 thorugh 8	0.098	1,300	127.4
9 thorugh 12	0.098	1,300	127.4
Subtotal			*709.8*
Phase II			
K thorugh 6	0.350	700	245.0
7 thorugh 8	0.098	700	68.6
9 thorugh 12	0.098	700	68.6
Subtotal			382.2
TOTAL Students Generated			**1,092**

SOURCE: CVESD; Sweetwater Union High School District 2005.

The residential developments and associated phasing of the residential developments under the Harbor Park Alternative are the same as that under the Proposed Project.

Phase I

The Harbor Park Alternative would generate 455 elementary students, 127.4 middle school students, and 127.4 high school students during Phase I. The addition of 455 new elementary students would exceed the capacity of the CVESD, and the additional middle and high school students would exceed the capacity of SUHSD. Both of these school districts would need new facilities during Phase I. As with the Proposed Project, impacts would be significant.

Phases II, III, and IV

During Phase II, approximately 245 elementary students, 68.6 middle school students, and 68.6 high school students would be generated. Because CVESD and SUHSD are currently operating at or near capacity, both school districts would need new facilities to serve the students generated by the Harbor Park Alternative. This impact during Phase II would be significant.

There are no impacts during Phases III and IV.

As discussed in threshold No. 1 above, the Harbor Park Alternative would require the construction of new facilities. Because the location of a school's site is currently unknown, the environmental effects of the provision of a school is speculative and beyond the scope of this analysis. As with the Proposed Project, this would be a significant impact.

e. Library Services

The residential developments and associated phasing of the residential developments under the Harbor Park Alternative are the same as that under the Proposed Project. Provision of library square footage is conditional on the residential population generation.

Phase I

The Harbor Park Alternative would result in a total population generation of approximately 2,807 persons. The project would require approximately 1,404 square feet of library facilities for Phase I development. The need for additional square footage would worsen the present shortfall in library square footage and books per capita. Similar to the Proposed Project, this would be a significant impact.

Phase II

Phase II would result in an additional population increase of approximately 1,511 persons and therefore require approximately 756 square feet of library facilities. Similar to the Proposed Project, this impact would be significant.

Phases III and IV

No residential uses are proposed in phases. Therefore, there would be no impacts.

As with the Proposed Project, the Harbor Park Alternative would require 2,160 square feet of library space. Until new library facilities are constructed or existing facilities expanded, significant impacts would result.

5.4.11.2 Public Services Summary and Mitigation

The Harbor Park Alternative would not avoid or substantially lessen the significant effects of the Proposed Project on public services. As shown in *Table 5.4-25*, the Harbor Park Alternative would result in significant impacts to schools and library services, similar to those identified for the Proposed Project over the long term. As with the Proposed Project, significant impacts to schools and library services would be mitigated to below a level of significance and would reduce impacts to schools and public services to below a level of significance.

In addition to those impacts to public services that are similar to the Proposed Project, the Harbor Park Alternative would also result in a significant impact to fire services as a new fire station is not proposed under this alternative. In order to address this impact, the City would have to provide additional equipment and/or facilities as deemed necessary by the City's Fire Department to ensure adequate fire protection services. The changes that may result from the provision of additional equipment or facilities as may be identified in the City's Fire Master Plan would be the responsibility and within the jurisdiction of the City and not the Port.

TABLE 5.4-25
Comparison of Public Services Impacts

	Proposed Project	Harbor Park Alternative
Fire Services		
Would the project reduce the ability to respond to calls throughout the City within the City's threshold standard to response to calls within 7 minutes in 80 percent of the cases?	No	Greater The Harbor Park Alternative would result in a greater impact to fire services as compared to the Proposed Project
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the fire protection and emergency services?	Yes: **Significant Impact 4.13.1-1**	Similar
Police Protection		
Would the project reduce the ability to respond to calls within the City's threshold standard for Priority One emergency calls within 7 minutes in 81 percent of the cases and maintain an average response time to all Priority One calls of 5.5 minutes or less or Priority Two urgent calls, within 7 minutes in 57 percent of cases, and maintain an average response time to all Priority Two calls of 7.5 minutes or less?	No	No
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities and/or the need for new or physically altered facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services?	No	No
Parkland		
Would the project result in the inability for the City to provide an adequate level of service in accordance with the Chula Vista Municipal Code Chapter 17.10.040 Parklands and Public Facilities?	Yes: **Significant Impacts 4.13.3-1** and **4.13.3-2**	Similar
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental or recreational facilities, need for new, expanded, or physically altered government or recreational facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for park and recreation services?	No	No
Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	No	No

TABLE 5.4-25
Comparison of Public Services Impacts

	Proposed Project	Harbor Park Alternative
Schools		
Would the project result in the CVESD and SUHSD not having the necessary school facilities to meet the needs of the students in new development areas in a timely manner?	Yes: **Significant Impact 4.13.4-1**	Similar
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives for schools?	Yes: **Significant Impact 4.13.4-2**	Similar
Library Services		
Would the project exceed the population ratio, which requires that 500 square feet (gross) of adequately equipped and staffed libraries be provided per 1,000 populations?	Yes: **Significant Impact 4.13.5-1**	Similar
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for libraries?	Yes: **Significant Impact 4.13.5-2**	Similar

5.4.12 Public Utilities

In order assess impacts to public utilities associated with the Harbor Park Alternative in relation to the Proposed Project, an evaluation of the Harbor Park Alternative against each public utilities threshold was conducted. *Section 5.4.12.1* provides an impact analysis and *Section 5.4.12.2* provides a summary of impacts and mitigation pertaining to the Harbor Park Alternative.

5.4.14.1 Impact Analysis of the Harbor Park Alternative

a. Water Supply and Analysis

Impacts to public utilities would be similar to those resulting from the Proposed Project. Ultimate build-out under the Harbor Park Alternative would require upgrades to sewer and water supply facilities to meet increased demand over time.

The projected water demand is presented by district in *Table 5.4-26* below:

TABLE 5.4-26
Harbor Park Alternative Water Demand Summary (MGD)

Development Area	Average Demand	Max Day Demand
Sweetwater District	0.216	0.540
Harbor District	1.358	2.648
Otay District	0.335	0.787
TOTAL	**1.909**	**3.975**

SOURCE: Kimley-Horn and Associates, Inc. 2006.

The water demand under the Harbor Park Alternative is less than the water demanded by the Proposed Project at build-out. Based on information from the Sweetwater Authority, there would be sufficient water supplies over a 25-year planning horizon, to meet the projected demands of the Proposed Project and the existing and planned development projects within the Sweetwater Authority's service area. Because the alternative would require less water demand than the Proposed Project, there would be sufficient water supplies available for the Harbor Park Alternative.

The City has protective measures in place to ensure that the available water is supplied and distributed throughout the City in accordance with demand. These measures apply to the residential development proposed under the City's jurisdiction and require the project applicant to request and deliver to the City service availability letters from the appropriate water district and submit a water conservation plan at the tentative map level.

Although sufficient water supply exists to serve the Harbor Park Alternative, there is uncertainty created by pending litigation involving imported water supplies. Pending litigation creates uncertainty and, therefore, sufficient reliable sources of water cannot be guaranteed. Similar to the Proposed Project, the Harbor Park Alternative still has the potential to result in significant unmitigable impacts to water supply because of the absence of long-term supply contracts for water.

As with the Proposed Project, existing infrastructure cannot accommodate the Harbor Park Alternative. Construction of water system improvements and connections (on and off site) for the entire project would result in noise impacts during site preparation and building activities. These impacts are the same as those associated with the Proposed Project.

As determined by the City of Chula Vista General Plan Update EIR, the updated General Plan is inconsistent with the SDCWA UWMP. Because the Harbor Park Alternative includes additional plan modifications to an already inconsistent General Plan, the Harbor Park Alternative would be inconsistent with the UWMP forecasts as well. This inconsistency would be temporary and significant.

b. Sewer Impacts and Analysis

Based on the same generation rates and sewage generation estimates used for the Proposed Project, the Harbor Park Alternative is expected to generate a total average flow of approximately 1.392 MGD and an approximate peak flow of 2.675 MGD. *Table 5.4-27* shows the sewage generation summary by district for the Harbor Park Alternative. The projected sewage generation broken down by parcel for this alternative is contained in *Appendix 4.5-2*.

TABLE 5.4-27
Harbor Park Alternative Sewage Generation Summary
(MGD)

Development Area	Average Flow	Peak Flow
Sweetwater District	0.129	0.303
Harbor District	1.065	1.939
Otay District	0.198	0.433
TOTAL	**1.392**	**2.675**

SOURCE: Kimley-Horn and Associates, Inc. 2006.

This alternative would generate approximately 0.06 MGD more sewage on average than the Proposed Project. The City currently has a capacity of 20.87 MGD and a current flow of 17.00. The City anticipates a future sewage generation rate of 26.20, which would require an additional needed capacity of 5.33 MGD. The City does not have capacity for future generation and would not have adequate capacity to serve the additional sewer generated from the Harbor Park Alternative.

The Harbor Park Alternative would require construction of new facilities in addition to replacement of existing sewer facilities. Construction of the proposed sewer system for Phase I and the entire project would result in noise impacts during site preparation and building activities. These impacts are the same as those associated with the Proposed Project and the similar to those identified for the construction of water facilities.

c. Solid Waste Management

The estimated solid waste generation for this alternative is presented in *Table 5.4-28*. As compared to the Proposed Project, this alternative would generate more solid waste by approximately 3,250 pounds per day, or 1.6 tons per day more than the Proposed Project. The Proposed Project is estimated to generate 10.1 tons per day. The Otay Landfill is permitted to accept 5,830 tons per day and is currently accepting about 4,500 tons per day. The 11.7 tons per day is not significant because landfill capacity would not be exceeded for between 16 and 21 years.

As with the Proposed Project, the Harbor Park Alternative would comply with federal, state, and local statues and regulations and therefore no significant impacts in regard to solid waste would occur.

TABLE 5.4-28
Solid Waste Estimates for the Harbor Park Alternative

		Phases						Total	
		I		II		III			
Category	Unit	pounds/ day	Total Units	pounds/ day	Total Units	pounds/ day	Total Units	pounds/ day	Total Units
Cultural	thousand square feet			2,800	400	350	50	3,150	450
Ferry	thousand square feet			125	25			125	25
Hotel	rooms	4,300	2,150	2,000	1,000			6,300	3,150
Office	thousand square feet	2,400	400			3,240	540	5,640	940
Residential	units	4,680	1,300	2,520	700			7,200	2,000
Retail	thousand square feet	1,320	220	900	150			2,220	370
RV Park	units			472	236			472	2236
TOTAL		**12,700**	**4070**	**8,817**	**2,511**	**3,590**	**590**	**25,107**	**7,171**

5.4.14.2 Public Utilities Summary and Mitigation

The Harbor Park Alternative would not avoid or substantially reduce the significant effects of the Proposed Project on public utilities. The Harbor Park Alternative would result in significant impacts to water facilities and significant impacts to sewer facilities, similar to the Proposed Project as shown in *Table 5.4-29* below. Implementation of mitigation measures detailed in *Section 4.14, Public Utilities,* would reduce these impacts to below a level of significance.

TABLE 5.4-29
Comparison of Public Utilities Impacts

	Proposed Project	Harbor Park Alternative
Water Impacts		
Are sufficient water supplies not available to serve the project from existing entitlements and resources, or result in the need for new or expanded entitlements?	No	No
Would the project require or result in the construction of new water treatment facilities or expansion of existing facilities and services, the construction of which could cause significant environmental effects?	Yes: **Significant Impacts 4.14.1-1** through **4.14.1-4**	Similar
Would the project be inconsistent with the assumptions used in the SDCWA UWMP?	No	No

TABLE 5.4-29 (Cont.)

	Proposed Project	Harbor Park Alternative
Sewer Impacts		
Would the project result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate planned capacity to serve projected demand in addition to the provider's existing commitments?	Yes: **Significant Impact 4.14.2-1**	Greater Wastewater generated under the Harbor Park Alternative would be slightly more than that under the Proposed Project.
Would the project require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	Yes: **Significant Impacts 4.14.2-2** through **4.14.2-5**	Similar
Solid Waste		
Would the project be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?	No	No
Would the project not comply with federal, state, and local statutes and regulations related to solid waste?	No	No

5.4.13 Seismic/Geologic Hazards

In order assess seismic/geologic hazards associated with the Harbor Park Alternative in relation to the Proposed Project, an evaluation of the Harbor Park Alternative against each seismic/geologic hazards threshold was conducted. *Section 5.4.13.1* provides an impact analysis and *Section 5.4.13.2* provides a summary of impacts and mitigation pertaining to the Harbor Park Alternative.

The analysis presented below is based on a Preliminary Geotechnical Evaluation for the Proposed Project development area (March 2005) prepared by Ninyo & Moore (see *Appendix 4.15-1*). The project area for the Harbor Park Alternative is identical to the project area for the Harbor Park Alternative; therefore, the report pertains to both development scenarios.

5.4.13.1 Impact Analysis of the Harbor Park Alternative

No active faults have been mapped or were observed within the project site, nor is the project site located within a State of California Earthquake Fault Zone (Alquist-Priolo Special Studies Zone). As with the Proposed Project, impacts associated with tsunamis are not significant for any phase of the project.

As with the Proposed Project, there is potential for strong ground motions to occur at the project site; therefore, impacts associated with strong motion and surface rupture are significant and apply to all development phases. In addition, loose granular soils (i.e., fill materials and bay deposits/alluvium) underlie portions of the site combined with a relatively shallow groundwater table. These soils have a moderate to high potential for liquefaction and settlement to occur during an earthquake and are not considered suitable for structural support. The project proposes

development on some of these sites; therefore, the potential of lateral spreading in the liquefiable soil below the groundwater table is considered an adverse impact on these sites.

5.4.13.2 Seismic/Geologic Hazards Summary and Mitigation

Implementation of the Harbor Park Alternative would not avoid or substantially lessen the significant effects from seismic/geologic hazards associated with the Proposed Project. The Harbor Park Alternative would result in impacts similar to the Proposed Project as shown in *Table 5.4-30* below. Implementation of mitigation measures detailed in *Section 4.15, Seismic/Geologic Hazards,* would reduce any potential significant impacts to below a level of significance.

TABLE 5.4-30
Comparison of Seismic/Geologic Hazards Impacts

	Proposed Project	Harbor Park Alternative
Would the project expose people or structures to adverse effects involving the rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known faults; or strong seismic ground shaking?	Yes: **Significant Impact 4.15-1**	Similar
Would the project expose people or structures to adverse effects involving seismic-related ground failure, including liquefaction, or it is located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	Yes: **Significant Impacts 4.15-2** through **4.15-5**	Similar
Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating a substantial risk to life or property?	No	No
Would the project be at located in an area where there is the potential for tsunamis?	No	No

5.4.14 Energy

In order to assess energy impacts associated with the Harbor Park Alternative in relation to the Proposed Project, an evaluation of the Harbor Park Alternative against each energy threshold was conducted. *Section 5.4.14.1* provides an impact analysis and provides a summary of impacts and mitigation pertaining to the Harbor Park Alternative.

5.4.14.1 Impact Analysis of the Harbor Park Alternative

The area of potential impact and intensity of development over time is generally the same under the Harbor Park Alternative as for the Proposed Project. The increased demand for energy resulting from development of the Proposed Project and the Harbor Park Alternative and the potential to exceed the available water supply would result in a significant impact. Implementation of mitigation detailed in *Section 4.16, Energy,* would reduce this impact to below a level of significance. The Harbor Park Alternative would not avoid or substantially lessen the significant effects of the Proposed Project on energy.

5.4.15 Population and Housing

In order assess Population and Housing associated with the Harbor Park Alternative in relation to the Proposed Project, an evaluation of the Harbor Park Alternative against each population and housing threshold was conducted. *Section 5.4.15.1* provides an impact analysis and *Section 5.4.15.2* provides a summary of impacts and mitigation pertaining to the Harbor Park Alternative.

Existing conditions for the Proposed Project are identical to that of the Harbor Park Alternative. There are no residential units located within the Harbor Park Alternative project boundaries. A recreational visitor-serving park (RV park) is located north of the Chula Vista Marina on Sandpiper Way, abutting the Bayside Park parking lot.

5.4.15.1 Impact Analysis of the Harbor Park Alternative

a. Direct Impacts

Similar to the Proposed Project, the Harbor Park Alternative would not result in significant population and housing impacts. The number of residential units proposed in the Harbor Park Alternative would be the same as that proposed under the Proposed Project. Both scenarios proposed 1,500 new residential units with approximately 3,800 new residents in areas where no residences currently exist. In addition to residential development, high-tech businesses, visitor service retail, parkland, and open space are proposed.

While the Harbor Park Alternative would create new residential units to house new residents in an area where no residences currently exist, direct impacts would not have a significant adverse environmental effect for the following reasons.

- The Bayfront is an area that has been planned for future residential growth;
- Project design is planned to accommodate population growth;
- The project would provide needed additional housing stock. Chula Vista has a very low vacancy rate for available housing (approximately 3 percent) per the most recent SANDAG update (2005); and
- Growth is not likely to extend beyond the project boundaries due to physical constraints of the project site (Bay on the west, 1-5 on the east, Chula Vista Nature Center on the north and south).

b. Indirect Impacts

As with the Proposed Project, increased population growth and intensity of land uses require construction of new infrastructure and facilities including roads, water, and sewer systems. The Harbor Park Alternative would have indirect impacts associated with traffic, air quality, public services, and public utilities as addressed in sections above.

There are currently no residences within the project boundary; therefore, the Harbor Park Alternative would not displace any existing housing or residents.

5.4.15.2 Population and Housing Summary and Mitigation

Neither the Harbor Park Alternative nor the Proposed Project would result in Population and Housing Impacts. No mitigation measures are necessary.

5.5 No Land Trade Alternative

The No Land Trade Alternative was selected for consideration to provide a development alternative which would not require an exchange of public trust land under Port jurisdiction in the Harbor District for private land in the Sweetwater District. Under this alternative, the proposed land trade would not take place, which would avoid the need for approval by the State Lands Commission. All tidelands trust properties in the Project Area would remain within the Port's jurisdiction; and all parcels held under option by private developers would remain within the City's jurisdiction.

This alternative would eliminate the proposed land uses within the Sweetwater District. Therefore, this alternative would consist of only the Harbor and Otay Districts, for a project area totaling 427 acres, and would not include the Sweetwater District. However, current land

entitlements as approved under the Midbayfront LCP would allow high-density residential units and a hotel and ancillary retail and commercial uses in the Sweetwater District. Although this alternative is geographically smaller, it takes into account the potential cumulative impacts should the approved Midbayfront LCP be developed. In a worst-case scenario, build-out of the Sweetwater District in accordance with the approved LCP would include 1,550 dwelling units, 2,028 hotel rooms, 150,000 square feet of retail, 140,000 square feet of office, and nearly 19 acres of parks. These uses are considered in the analysis as potential cumulative impacts. *Figure 5.5-1* shows the proposed parcel plan configuration for this alternative, while *Figure 5.5-2* illustrates this plan alternative. *Table 5.5-1* provides a summary of proposed development and height ranges. The required cut-and-fill details are listed in *Table 5.5-2* below. *Appendix 3.4-1* of this report contains the draft PMP Amendment tables and graphics for the No Land Trade Alternative.

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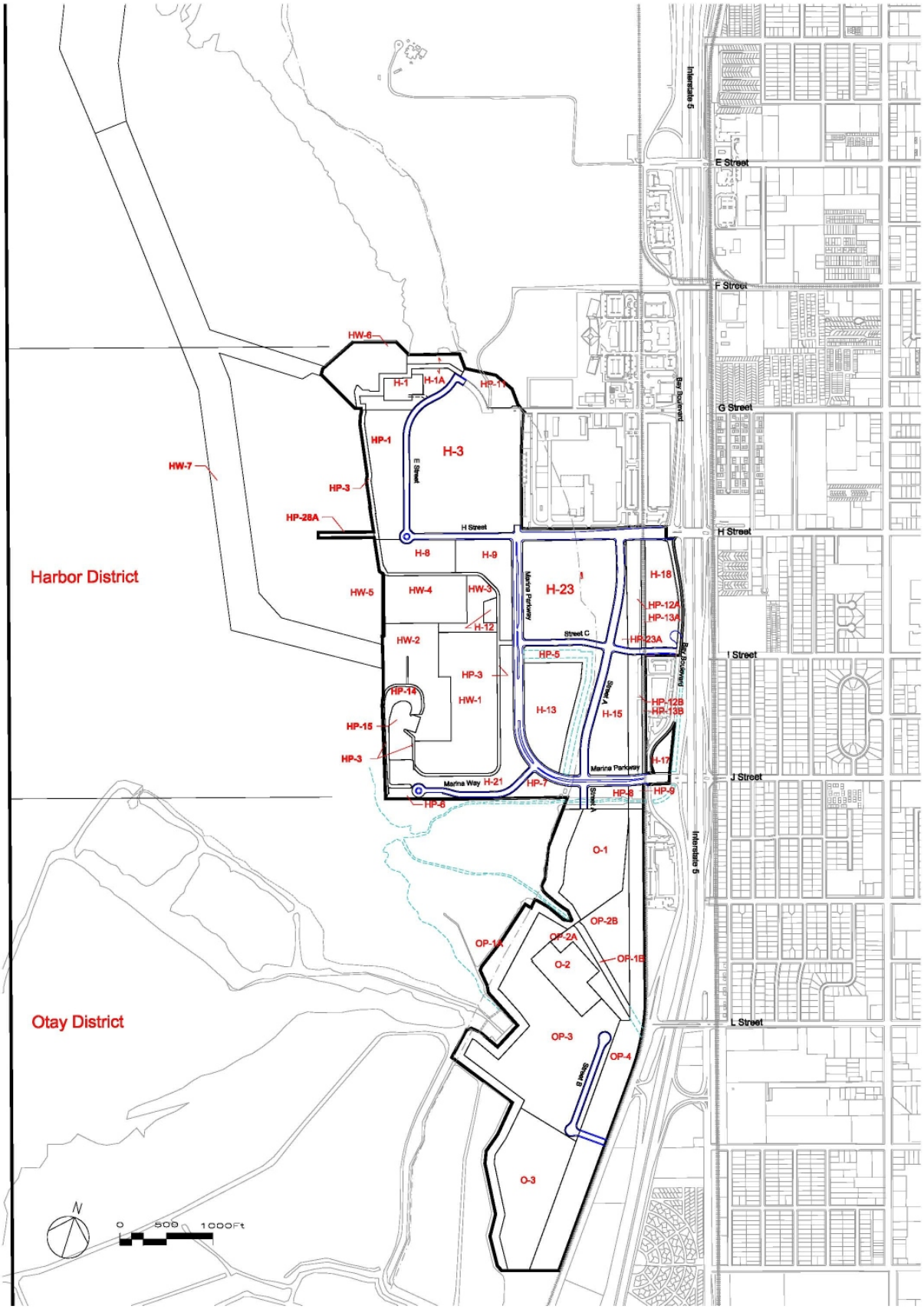

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SOURCE: Port of San Diego

Revised Draft Environmental Impact Report (EIR) for the Chula Vista Bayfront Master Plan

No Land Trade Alternative Parcel Plan

FIGURE
5.5-1

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SOURCE: Port of San Diego, 2008

Revised Draft Environmental Impact Report (EIR) for the Chula Vista Bayfront Master Plan

No Land Trade Alternative Illustrative Plan

FIGURE
5.5-2

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TABLE 5.5-1
No Land Trade Alternative Summary Table
Proposed Uses and Development Program/Height Ranges

District, Phase, Parcel Number	Proposed Use	Approximate Program Range	Maximum Stories	Maximum Height (feet)
Harbor District				
Phase I				
H-3	Resort Conference Center (RCC)	1,500 to 2,000 rooms	N/A	300
H-3	RCC Conference Space	415,000 square feet (net)	N/A	120
H-3	RCC Restaurant	100,000 square feet	N/A	N/A
H-3	RCC Retail	20,000 square feet	N/A	N/A
H-8, H-23, HP-1	Signature Park/Cultural	41 acres	1 to 3	30 to 65
H-9	Interim Park/Landscaping	2 acres	1	N/A
H-18 (Interim Use)	Interim Surface Parking Lot	1,100 spaces	N/A	N/A
HP-3	Shoreline Promenade (abutting HP-1 and H-8)	3 acres	N/A	N/A
HP-23A	Industrial Business Park Use	1 acre	N/A	N/A
Streets	E Street Extension, H Street Extension, Street A, Street C		N/A	N/A
Phase II				
H-9	Retail/Commercial Recreation and Marina Support	25,000 to 50,000 square feet	1 to 2	15 to 30
H-13 H-13	Hotel Retail	500 rooms 200,000 square feet	14 to 17 1 to 2	170 to 200
H-15 H-15	Mixed-Use Office/Commercial Recreation Hotel	300,000 to 420,000 square feet 250 rooms	14 to 17 14 to 17	90 to 130
H-17	Industrial Business Park Use	2 acres	N/A	N/A
HP-3	Shoreline Promenade (abutting H-9)	1 acre	N/A	N/A
HP-5	Wetlands and Buffer	9 acres	N/A	N/A
HP-28	H Street Pier (first half)	0.4 acre	N/A	N/A
Phase III				
H-21	Retail/Commercial Recreation and Marina Support	75,000 to 150,000 square feet	1 to 2	15 to 30
HP-3	Shoreline Promenade (abutting HP-14, HP-15, and H-21)	3 acres	N/A	N/A
HP-6, HP-7, HP-8, HP-9, HP-12, HP-13, HP-14, HP-15	Parks/Open Space	25 acres	N/A	N/A
Phase IV				
H-1	Community Boating Center	10,000 to 20,000 square feet	1 to 2	15 to 30
H-1A	Signature Park	5 acres	N/A	N/A
H-12	Ferry Terminal/Restaurant	10,000 to 25,000 square feet	2	30 to 40
H-18	Mixed-Use Office/Commercial Recreation	100,000 square feet	6 to 10	85 to 155
H-18	Collector Parking Garage	1,100 to 3,000 spaces	6 to 10	85 to 155
HP-3	Shoreline Promenade (abutting H-1 and H-1A)	2 acres	N/A	N/A

TABLE 5.5-1 (Cont.)

District, Phase, Parcel Number	Proposed Use	Approximate Program Range	Maximum Stories	Maximum Height (feet)
HP-28	H Street Pier (second half)	0.4 acre	N/A	N/A
HW-1, HW-2, HW-4, HW-6	Marinas (see H-1, H-9, and H-21), Boat Navigation/Open Water Area	54 acres, 900 slips	N/A	N/A
HW-3	Commercial Harbor	4 acres	N/A	N/A
HW-7	Navigation Channel	60 acres	N/A	N/A
Otay District				
Phase III				
O-1	RV Park	175 to 236 RV parking spaces	1 to 2	15 to 35
O-3	Industrial Business Park Use	21 acres	N/A	N/A
OP-1A	Ecological Buffer	24 acres	N/A	N/A
OP-3, OP-4	Parks/Open Space	64 acres	N/A	N/A
Streets	Street A, Street B			

NOTES:

Existing J Street/Marina Parkway alignment between Bay Blvd. and H Street will remain.
HP-11 Existing Wetland will remain.
HW-5 Existing Fishing Pier will remain.
O-1 Existing Switchyard and OP-2A/OP-2B Existing Switchyard Easement will remain.
OP-1B Existing Telegraph Creek Channel will remain.

TABLE 5.5-2
Grading Quantities (cubic yards)

District	Cut	Fill	Import/Export
Harbor District	65,000	620,000	<555,000> import
Otay District	55,000	360,000	<305,000> import
TOTAL	**300,000**	**1,150,000**	**<850,000> import**

This alternative is similar to the Proposed Project in the Harbor and Otay Districts, except for the following major differences, if this alternative were adopted:

- There would be no land trade and approval would not be required by the State Lands Commission.
- Instead of residential use on H-13, this parcel would remain within Port jurisdiction and would consist of a 500-room hotel and 200,000 square feet of cultural/retail. The maximum height of buildings on H-13 would be 200 feet instead of 220 feet. This parcel, along with HP-5, would be completed in Phase II instead of in Phase I as with the Proposed Project.
- The signature park would be proposed on H-23 and would include development for cultural uses, with a maximum height of 65 feet instead of 300 feet.
- The uses on H-15 would be the same as for the Proposed Project (420,000 square feet of mixed-use office/commercial recreation and a 250-room hotel); however, since this parcel would remain under Port jurisdiction (unlike the Proposed Project), they would be trust-related mixed-use office/commercial recreation and hotel uses.
- No fire station would be proposed on H-17, as is proposed under the Proposed Project. This parcel would remain in the Port's jurisdiction and would be designated for Industrial Business Park use.
- J Street/Marina Parkway would remain in its existing configuration between Bay Boulevard, and H Street and would not be narrowed and reconfigured as with the Proposed Project. This would slightly decrease the size of the abutting development parcels. No modifications would be needed for HP-6, HP-7, and HP-8.
- The RV Park would be located on the northernmost portion of the Otay District on O-1 instead of towards the middle of the Otay District as with the Proposed Project.
- The switchyard and associated easements, located on O-3A/O-3B, and a portion of O-1 on the Proposed Project parcel plan would remain in place. The switchyard would not be relocated to the southern portion of the Otay District.
- Telegraph Creek Channel would remain as is in size and would not be widened because the switchyard would remain.

- The OP-3 South Park would increase from 24 acres to 36 acres.
- Parcel O-3 would decrease from 28 acres to 21 acres.
- There would be limited new roadways in the Otay District compared to the Proposed Project.
- The required fill to be imported would be approximately 110,000 cubic yards less than for the Proposed Project. All other uses and phasing would be the same as for the Proposed Project.

This alternative would not achieve a major objective of the Proposed Project, which is to improve land use compatibility by relocating residential development away from resources in the Sweetwater Marsh NWR while allowing higher-intensity and compatible uses in the Harbor and Otay Districts.

5.5.1 Land/Water Use Compatibility

The proposed land uses for the No Land Trade Alternative are summarized in *Table 5.5-1* above. Unlike the Proposed Project, selection of this alternative would avoid the need for approval by the State Lands Commission. All tidelands trust properties in the project area would remain in the Port's jurisdiction, and all parcels held under option by private developers would remain the City's jurisdiction.

The No Land Trade Alternative would be incompatible with adopted plans for the project area; however, as with the Proposed Project, amendments to the applicable plans and PMP would allow development as proposed for this alternative. The proposed amendment to the PMP would reduce industrial uses from the majority of the planning areas and designate them for commercial/recreational use. In addition, the CCC would have to approve the project because proposed development would not conform to the certified LCP or PMP. Implementation of this alternative would also require an adjustment to the MSCP boundary if the existing Marina Parkway is not realigned to avoid sensitive biological impacts. Consequently, the No Land Trade Alternative's impacts on land/water use compatibility resulting from conflicts with applicable habitat conservation plans would be greater than those identified for the Proposed Project.

This alternative would not incorporate the land uses proposed for the Sweetwater District under the Proposed Project and instead consist of development in only the Harbor and Otay Districts, for a project area totaling 427 acres. This would allow development in the Sweetwater District as approved under the current Midbayfront LCP. Current land entitlements as approved under the LCP would allow high-density residential units and a hotel and ancillary retail and commercial uses in the Sweetwater District. Although the No Land Trade Alternative would result in a reduced development footprint as compared to the Proposed Project, cumulative impacts resulting from development of the Sweetwater District in accordance with the approved LCP,

rather than as proposed under the Proposed Project, would result in a greater impact to land/water use compatibility than the Proposed Project due to conflicts associated with placement of high-intensity uses adjacent to the Sweetwater Marsh NWR.

Significant impacts to open water, as well as the mitigation necessary to reduce those impacts to below a level of significance, would be the same as for the Proposed Project. Implementation of mitigation measures identified for the Proposed Project in *Section 4.1, Land/Water Use Compatibility,* would reduce land/water use impacts associated with proposed park uses on CCC jurisdictional wetlands and conflicts with the MSCP Subarea Plan.

Whereas development is focused away from the Sweetwater District in the Proposed Project, the development of higher-intensity uses in the Sweetwater District under the No Land Trade Alternative would result in adjacency conflicts with nearby sensitive resources in the Sweetwater Marsh NWR and F & G Street Marsh. This would result in potential cumulative impacts should the approved Midbayfront LCP be developed. Although some of the significant land/water compatibility impacts would be reduced through implementation of mitigation measures as detailed in *Section 4.1, Land/Water Use Compatibility*, selection of this alternative would result in a greater impact to land use overall. Moreover, this alternative would directly conflict with a major objective of the Proposed Project, which is to avoid high-intensity development in the Sweetwater District while allowing higher-intensity and more compatible uses in the Harbor and Otay Districts. Implementation of this alternative would not substantially reduce significant impacts from the Proposed Project.

5.5.2 Traffic/Circulation and Parking

The following discussion describes the traffic-related impacts for each of the three development phases for the No Land Trade Alternative.

The No Land Trade Alternative only encompasses development in the Harbor and Otay Districts. The project does not include any development in the Sweetwater District; therefore, it is assumed that the Sweetwater District will be developed independently of the Bayfront Master Plan. As the timing of this development is unknown, it is conservatively assumed to occur prior to Phase I of the Bayfront Master Plan development, and it is included in the Phase I Baseline scenario. The land uses for the Sweetwater District are assumed to be the same as what was adopted in the Midbayfront LCP. These uses include 1,550 dwelling units, 2,028 hotel rooms, 150,000 square feet of retail, 140,000 square feet of office, and nearly 19 acres of parks. In total, the Midbayfront LCP uses are forecast to generate 35,269 daily trips, including 2,250 in the A.M. peak hour, and 2,962 in the P.M. peak hour. This amount of development is substantially higher than what is included in the Sweetwater District for the Proposed Project. In order to serve this development, the Midbayfront LCP street network would need to be completed prior to Phase I. This includes the extension of E Street as a four-lane Major Road from Bay Boulevard to the

northern edge of the Harbor District and the extension of F Street to E Street as a four-lane Class I Collector.

a. Trip Generation

As shown on *Table 5.5-3*, the No Land Trade Alternative is expected to generate a total of 61,139 daily trips (as compared to 79,317 total daily trips for the Proposed Project). At build-out, this alternative would result in 18,178 fewer trips than generated by the Proposed Project and would include 3,937 (2,703 in, 1,234 out) A.M. peak-hour trips and 5,653 (2,631 in, 3,022 out) P.M. peak-hour trips.

With implementation of the No Land Trade Alternative, Phase I is expected to generate a total of 24,146 daily trips, including 1,535 (894 in, 641 out) A.M. peak-hour trips and 1,974 (1,147 in, 827 out) P.M. peak-hour trips. Phase II is expected to generate a total of 24,761 daily trips, including 238 (149 in, 89 out) A.M. peak-hour trips and 592 (286 in, 306 out) P.M. peak-hour trips. Phase III is expected to generate a total of 9,390 daily trips, including 495 (329 in, 166 out A.M. peak-hour trips and 923 (406 in, 517 out) P.M. peak-hour trips. Phase IV is expected to generate a total of 2,843 daily trips, including 315 (270 in, 45 out) A.M. peak-hour trips and 330 (97 in, 233 out) P.M. peak-hour trips. Under this alternative and similar to the Proposed Project, the entire project would be built by Phase IV.

b. Intersection Analysis

Phase I

Under Phase I conditions, the following intersections would operate at an unacceptable LOS and would require mitigation:

- E Street and I-5 Southbound Off-Ramps (LOS F, both peak-hours);
- E Street and I-5 Northbound On-Ramp (LOS E, PM peak-hour);
- E Street and Broadway (LOS E, PM peak-hour);
- F Street and Bay Boulevard (LOS E, PM peak-hour);
- L Street and Bay Boulevard (LOS E, AM peak-hour, LOS F, PM peak hour); and
- I-5 Southbound Ramps and Bay Boulevard (LOS E, PM peak-hour).

In assessing the impacts of the project on the existing roadway network, it was determined that another connection to access I-5 is needed to alleviate some of the traffic on E Street. For this reason, H Street would be extended from I-5 to Street A and would be built as a 2-lane Class III Collector. The extension of H Street would cause a redistribution of traffic in the project area, alleviating traffic at some intersections and worsening conditions at others. As a result of

redistribution, the following intersections would continue to experience unacceptable LOS and would require additional mitigation beyond that which is included under the Proposed Project:

- E Street and I-5 Southbound Off-Ramp (LOS E, A.M. peak-hour, LOS F, P.M. peak-hour);
- F Street and Bay Boulevard (LOS E, P.M. peak-hour);
- L Street and Bay Boulevard (LOS E, A.M. peak-hour, LOS F, P.M. peak-hour); and
- I-5 Southbound Ramps and Bay Boulevard (LOS F, P.M. peak-hour).

The mitigation required to improve the operating conditions of these intersections to an acceptable LOS consists of traffic signal installation at three intersections and the addition of through/turn lanes at the E Street and I-5 Southbound Off-Ramp intersections. These mitigation measures will restore the LOS to the minimum performance standard (i.e., LOS D or better).

Phase II

Under Phase II conditions, the following intersections would operate at an unacceptable LOS and would require mitigation:

- F Street and Bay Boulevard (LOS E, P.M. peak-hour);
- H Street and Gaylord Driveway (LOS E, P.M. peak-hour); and
- J Street and Bay Boulevard (LOS F, both peak-hours).

The mitigation required to improve the operating conditions of these intersections to an acceptable LOS consists of:

- Adding an exclusive Southbound and Eastbound right-turn lane at the intersection of F Street and Bay Boulevard;
- Adding a second Westbound through lane and an exclusive Eastbound right-turn lane at the intersection of H Street and Gaylord Driveway; and
- Construction of a traffic signal at the intersection of J Street and Bay Boulevard.

The above-listed improvements would restore operations at the intersections to an acceptable LOS.

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TABLE 5.5-3
Total Trip Generation Summary-No Land Trade Alternative

Phase	Parcel	Land Use	Units[1]		Trip Rate[2]			Daily Trips	A.M. Peak-Hour			P.M. Peak-Hour		
									In	Out	Total	In	Out	Total
Harbor District														
IV	H-1A	Signature Park	4.4	acres	50	/	acre	218	14	14	28	10	10	20
I	H-3	Hotel	2,000	rooms	10	/	room	20,000	720	480	1,200	960	640	1,600
I	HP-8/HP-1	Signature Park	19.0	acres	50	/	acre	950	62	62	124	43	43	86
I	H-9	Retail/Commercial	50	ksf	40	/	ksf	2,000	36	24	60	90	90	180
IV	H-12	Ferry Terminal/Restaurant	25	ksf	25	/	ksf	625	4	2	6	35	15	50
II	H-13	Hotel	500	rooms	10	/	room	5,000	180	120	300	240	160	400
II	H-15	Mixed-Use Office	210	ksf	40	/	ksf	8,000	144	96	240	360	360	720
II	H-15	Visitor Hotel	250	rooms	8	/	room	2,000	60	40	100	56	84	140
II	H-15	Retail	84	ksf	40	/	ksf	3,360	60	41	101	151	151	302
II	H-17	Industrial Business Park	3.0	acres	90	/	acre	270	27	3	30	6	26	32
IV	H-18	Office	100	ksf	20	/	ksf	2,000	252	28	280	52	208	260
III	H-21	Retail	150	ksf	40	/	ksf	6,000	108	72	180	270	270	540
I	H-23	Signature Park	23.0	acres	50	/	acre	1,150	75	75	150	52	52	104
I	HP-03	50-Foot Baywalk	9.1	acres	5	/	acre	46	1	1	2	2	2	4
II	HP-28	H Street Pier	0.8	acre	50	/	acre	41	3	2	5	2	2	4
Subtotal Harbor District								**57,749**	**2,482**	**1,140**	**3,622**	**2,495**	**2,775**	**5,270**
Otay District														
III	O-1	RV Park	236	DU	5	/	DU	1,180	28	66	94	78	52	130
III	O-3	Industrial Park Use						1,890	187	21	208	45	182	227
III	OP-3	South Park	64.0	acre	5	/	acre	320	6	7	13	13	13	26
Subtotal Otay District								**3,390**	**221**	**94**	**315**	**136**	**247**	**383**
							TOTAL	**61,139**	**2,703**	**1,234**	**3,937**	**2,631**	**3,022**	**5,653**

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Phase III

Under Phase III conditions, the following intersections would operate at an unacceptable LOS and would require mitigation:

- J Street and I-5 Northbound Ramps (LOS E, A.M. peak-hour);
- Marina Parkway and Marina Way (LOS F, P.M. peak-hour); and
- J Street and Street A (LOS F, both peak-hours).

The mitigation required to improve the operating conditions of these intersections to an acceptable LOS consists of:

- Adding an exclusive Westbound right-turn lane at the intersection of J Street and I-5 Northbound Ramps;
- Construction of a traffic signal at the intersection of Marina Parkway and Marina Way; and
- Construction of a traffic signal and the addition of an exclusive Eastbound and Westbound left-turn and a Westbound right-turn lane at the intersection of J Street and Street A.

The above-listed improvements would restore operations at the intersections to an acceptable LOS.

Phase IV

While the No Land Trade Alternative would not result in any direct impacts to study area roadways, it would result in cumulative impacts to the following 6 intersections:

- E Street and Broadway (LOS E, P.M. peak-hour);
- F Street and Bay Boulevard (LOS E, P.M. peak-hour);
- F Street and Broadway (LOS E, P.M. peak-hour);
- H Street and Woodlawn Avenue (LOS F, both peak-hours);
- H Street and Broadway (LOS E, P.M. peak-hour); and
- J Street and I-5 Northbound Ramps (LOS E, A.M. peak-hour).

The mitigation required to improve the operating conditions of these intersections to an acceptable LOS consists of:

- Adding a dual Eastbound left-turn lane at the intersection of E Street and Broadway;
- Adding an Eastbound through lane and a dual Southbound left-turn lane at the intersection of F Street and Bay Boulevard;
- Adding an exclusive Eastbound right-turn lane at the intersection of F Street and Broadway;
- Adding an Eastbound and Westbound through lane and an Westbound right-turn lane at the intersection of H Street and Woodlawn Avenue;
- Adding a Westbound through lane and a Westbound right-turn lane at the intersection of H Street and Broadway; and
- Adding a dual Eastbound left-turn lane at the intersection of J Street and the I-5 Northbound Ramps.

The above-listed improvements would restore operations at the intersections to an acceptable LOS.

It should be noted that each of the impacted intersections would require mitigation for operations to be restored to an acceptable LOS. *Table 5.5-4* summarizes the proposed mitigation to be implemented throughout the project. With mitigation, each of the impacted intersections listed above would operate at an acceptable LOS.

Tables 5.5-5 through *5.5-8* compare the intersection operations under the Proposed Project scenario against the No Land Trade Alternative scenario. As shown in the tables, impacts to intersections would be similar under the No Land Trade Alternative scenario to the Proposed Project, although there are several new intersection impacts that exist under the No Land Trade Alternative.

TABLE 5.5-4
No Land Trade Alternative Proposed Roadway Segment, Intersection, and Freeway Improvements

Facility	Description of Improvement	Timing
Roadway Segments		
Street C between Marina Parkway and Street A	Construct as a 2-lane Class III Collector	Phase I
Bay Boulevard between E Street and F Street	Widen to a 4-lane Class I Collector	Phase I
H Street between Marina Parkway and Street A	Construct and widen to a 2-lane Class II Collector	Phase I
H Street between Street A and I-5 Ramps	Construct and widen to a 5-lane Major Street	Phase I
H Street west of Marina Parkway	Construct and widen to a 3-lane Class II Collector	Phase I/Phase II
E Street between H Street and Gaylord Driveway	Construct and widen to a 2-lane Class II Collector	Phase I/Phase III
Street A between H Street and Street C	Construct and widen to a 2-lane Class II Collector	Phase I/Phase III
E Street between F Street and Bay Boulevard	Widen to a 2-lane Class II Collector	Phase II
J Street between Bay Boulevard and I-5 Ramps	Widen to a 6-lane Major Street	Phase II
Street A between Street C and J Street	Construct and widen to a 4-lane Class I Collector	Phase II
J Street between Street A and Bay Boulevard	Widen to a 6-lane Major Street	Phase III
Street A between J Street and Street B	Construct as a 2-lane Class III Collector	Phase III
Street B between Street A and Bay Boulevard	Construct as a 2-lane Class III Collector	Phase III
Bay Boulevard between F Street and H Street	Widen to a 2-lane Class II Collector	Phase III
H Street between I-5 Ramps and Broadway	Widen to a 6-lane Gateway Street	Phase IV
Intersections		
E Street & Bay Boulevard/I-5 Southbound Off-Ramp	Add second westbound through lane, third eastbound through lane, a dual southbound left-turn lane, a dual northbound right-turn lane, and an exclusive southbound right-turn lane	Phase I
E Street & Broadway	Add a dual eastbound left-turn lane	Phase I
F Street & Bay Boulevard	Construct traffic signal and convert eastbound and westbound shared left-through lanes to exclusive left turn lanes with protected phasing. Add exclusive southbound and eastbound right-turn lanes. Add an eastbound through lane and a dual southbound left-turn lane	Phase I/Phase II/ Phase III
F Street & Broadway	Add an exclusive eastbound right-turn lane	Phase II
H Street & Gaylord Driveway	Add a second westbound through lane and an exclusive eastbound right-turn lane	Phase II
H Street & Woodlawn Avenue	Add eastbound and westbound through lane as part of roadway segment mitigation and add westbound right-turn lane	Phase III
H Street & Broadway	Add a westbound through lane and a westbound right-turn lane	Phase III
J Street & Bay Boulevard	Construct a traffic signal	Phase III
J Street & I-5 NB Ramps	Add an exclusive westbound right-turn lane and add a dual eastbound left-turn lane	Phase IV
L Street & Bay Boulevard	Construct a traffic signal	Phase IV
I-5 Southbound Ramps & Bay Boulevard	Construct a traffic signal	Phase IV
Marina Parkway & Marina Way	Construct a traffic signal	Phase IV
J Street & Street A	Construct a traffic signal and add exclusive eastbound and westbound left-turn lane and a westbound right-turn lane	Phase IV

TABLE 5.5-5
Phase I Intersection Operations
(Proposed Project and No Land Trade Alternative)

	Intersection	Peak Hour	Proposed Project Phase I Baseline LOS	Proposed Project Phase I Plus Project LOS	No Land Trade Phase I Baseline LOS	No Land Trade Phase I Plus Project LOS	DIRECT IMPACT?
1	E Street & I-5 Southbound Off-Ramp	AM	B	B	D	**F**	**No Land Trade**
		PM	B	**F**	F	**F**	**Both**
2	E Street & I-5 Northbound On-Ramp	AM	C	C	C	D	No
		PM	B	C	B	**E**	**No Land Trade**
3	E Street & Woodlawn Ave	AM	C	C	C	C	No
		PM	B	C	C	C	No
4	E Street & Broadway	AM	B	B	C	C	No
		PM	C	D	D	**E**	**No Land Trade**
5	E Street & 5th Ave	AM	A	A	A	A	No
		PM	A	A	A	A	No
6	E Street & 4th Ave	AM	B	B	B	B	No
		PM	C	C	C	C	NO
7	E Street & 3rd Ave	AM	B	B	B	B	No
		PM	C	C	C	C	No
8	F Street & Bay Blvd	AM	A	C	B	B	No
		PM	B	**F**	E	**E**	**Both**
9	F Street & Broadway	AM	B	B	B	B	No
		PM	C	C	C	C	No
10	F Street & 5th Ave	AM	A	A	A	A	No
		PM	A	A	B	B	No
11	F Street & 4th Ave	AM	B	B	B	B	No
		PM	C	C	C	C	No
12	F Street & 3rd Ave	AM	B	B	B	B	No
		PM	C	C	C	C	No
13	H Street & Gaylord Dwy	AM	DNE	B	DNE	B	No
		PM		B		C	No

TABLE 5.5-5 (Cont.)

	Intersection	Peak Hour	Proposed Project Phase I Baseline LOS	Proposed Project Phase I Plus Project LOS	No Land Trade Phase I Baseline LOS	No Land Trade Phase I Plus Project LOS	DIRECT IMPACT?
14	H Street & Bay Blvd	AM	B	C	B	C	No
		PM	A	B	A	B	No
15	H Street & I-5 Southbound Ramps	AM	C	C	C	C	No
		PM	C	C	C	C	No
16	H Street & I-5 Northbound Ramps	AM	B	B	B	B	No
		PM	B	B	B	B	No
17	H Street & Woodlawn Ave	AM	C	C	C	C	No
		PM	C	C	C	C	No
18	H Street & Broadway	AM	C	C	C	C	No
		PM	C	D	D	D	No
19	H Street & 5th Ave	AM	B	B	B	B	No
		PM	B	B	B	B	No
20	H Street & 4th Ave	AM	C	C	C	C	No
		PM	C	C	C	C	No
21	H Street & 3rd Ave	AM	B	B	B	B	No
		PM	C	C	C	C	No
22	J Street & Bay Blvd	AM	B	**F**	B	C	**Proposed Project**
		PM	B	**F**	B	D	**Proposed Project**
23	J Street & I-5 Southbound Ramps	AM	B	C	B	B	No
		PM	B	C	B	B	No
24	J Street & I-5 Northbound Ramps	AM	B	D	B	B	No
		PM	B	C	D	D	No
25	J Street & Woodlawn Ave	AM	B	B	B	B	No
		PM	B	B	B	B	No
26	J Street & Broadway	AM	B	B	B	B	No
		PM	C	C	C	C	No
27	L Street & Bay Blvd	AM	C	**F**	C	**E**	**Both**
		PM	F	**F**	F	**F**	**Both**
28	L Street & Industrial Blvd	AM	C	C	C	C	No
		PM	C	C	C	C	No

TABLE 5.5-5 (Cont.)

	Intersection	Peak Hour	Proposed Project Phase I Baseline LOS	Proposed Project Phase I Plus Project LOS	No Land Trade Phase I Baseline LOS	No Land Trade Phase I Plus Project LOS	DIRECT IMPACT?
29	L Street & Broadway	AM	B	B	B	B	No
		PM	C	C	C	C	No
30	I-5 Southbound Ramps & Bay Blvd	AM	C	D	C	D	No
		PM	E	**F**	E	**F**	**Both**
31	I-5 Northbound Ramps & Industrial Blvd	AM	B	B	B	B	No
		PM	B	C	B	B	No
32	F Street & E Street	AM	DNE		A	C	No
		PM			A	D	No
33	H Street & Street A	AM	DNE		DNE		No
		PM					No
34	Street C & Marina Pkwy	AM	DNE		DNE	B	No
		PM				B	No
35	Street C & Street A	AM	DNE		DNE		No
		PM					No
36	Marina Pkwy & Marina Way	AM	DNE	B	A	C	No
		PM		**E**	B	C	No
37	J Street & Street A	AM	DNE	B	DNE		No
		PM		C			No
38	Street B & Bay Blvd	AM	DNE		DNE		No
		PM					No
39	Gaylord Secondary Driveway & E Street	AM	DNE		DNE	B	No
		PM				C	No

TABLE 5.5-6
Phase II Intersection Operations
(Proposed Project and No Land Trade Alternative)

Intersection		Peak Hour	Proposed Project Phase II Baseline LOS	Proposed Project Phase II Plus Project LOS	No Land Trade Phase II Baseline LOS	No Land Trade Phase II Plus Project LOS	DIRECT IMPACT?
1	E Street & I-5 Southbound Off-Ramp	AM	B	B	C	C	No
		PM	B	B	D	D	No
2	E Street & I-5 Northbound On-Ramp	AM	C	C	C	C	No
		PM	C	C	B	B	No
3	E Street & Woodlawn Ave	AM	C	C	C	C	No
		PM	C	C	C	C	No
4	E Street & Broadway	AM	B	C	C	C	No
		PM	D	D	D	D	No
5	E Street & 5th Ave	AM	A	A	A	A	No
		PM	A	A	A	A	No
6	E Street & 4th Ave	AM	B	B	B	B	No
		PM	C	C	C	C	NO
7	E Street & 3rd Ave	AM	B	B	B	B	No
		PM	C	C	C	C	No
8	F Street & Bay Blvd	AM	A	A	C	C	No
		PM	B	B	D	**E**	**No Land Trade**
9	F Street & Broadway	AM	B	B	B	B	No
		PM	C	C	C	C	No
10	F Street & 5th Ave	AM	A	A	A	A	No
		PM	A	A	B	B	No
11	F Street & 4th Ave	AM	B	B	B	B	No
		PM	C	C	C	C	No
12	F Street & 3rd Ave	AM	B	B	B	B	No
		PM	C	C	C	C	No
13	H Street & Gaylord Dwy	AM	B	C	B	C	No
		PM	D	**E**	C	**E**	**Both**
14	H Street & Bay Blvd	AM	B	A	C	C	No
		PM	C	C	C	C	No

TABLE 5.5-6 (Cont.)

Intersection		Peak Hour	Proposed Project Phase II Baseline LOS	Proposed Project Phase II Plus Project LOS	No Land Trade Phase II Baseline LOS	No Land Trade Phase II Plus Project LOS	DIRECT IMPACT?
15	H Street & I-5 Southbound Ramps	AM	C	C	B	B	No
		PM	C	C	C	C	No
16	H Street & I-5 Northbound Ramps	AM	B	B	B	B	No
		PM	C	C	C	C	No
17	H Street & Woodlawn Ave	AM	C	C	C	C	No
		PM	C	C	C	C	No
18	H Street & Broadway	AM	C	C	C	C	No
		PM	D	D	D	D	No
19	H Street & 5th Ave	AM	B	B	B	B	No
		PM	B	B	B	B	No
20	H Street & 4th Ave	AM	C	C	C	C	No
		PM	C	D	C	C	No
21	H Street & 3rd Ave	AM	B	B	B	B	No
		PM	C	C	C	C	No
22	J Street & Bay Blvd	AM	C	C	B	**F**	**No Land Trade**
		PM	C	**E**	B	**F**	**Both**
23	J Street & I-5 Southbound Ramps	AM	C	B	B	B	No
		PM	C	C	C	C	No
24	J Street & I-5 Northbound Ramps	AM	C	D	B	D	No
		PM	C	D	B	C	No
25	J Street & Woodlawn Ave	AM	B	B	B	B	No
		PM	B	B	B	B	No
26	J Street & Broadway	AM	B	B	B	B	No
		PM	C	C	C	C	No
27	L Street & Bay Blvd	AM	A	A	B	B	No
		PM	B	B	C	C	No
28	L Street & Industrial Blvd	AM	C	C	C	C	No
		PM	C	C	C	C	No
29	L Street & Broadway	AM	B	B	B	B	No
		PM	C	C	C	D	No
30	I-5 Southbound Ramps & Bay Blvd	AM	A	A	B	B	No

TABLE 5.5-6 (Cont.)

Intersection		Peak Hour	Proposed Project Phase II Baseline LOS	Proposed Project Phase II Plus Project LOS	No Land Trade Phase II Baseline LOS	No Land Trade Phase II Plus Project LOS	DIRECT IMPACT?
		PM	B	B	B	B	No
31	I-5 Northbound Ramps & Industrial Blvd	AM	B	B	B	B	No
		PM	C	C	B	C	No
32	F Street & E Street	AM	A	B	B	B	No
		PM	A	A	C	C	No
33	H Street & Street A	AM	DNE	C	A	B	No
		PM		**F**	B	B	**Proposed Project**
34	Street C & Marina Pkwy	AM	DNE	B	A	B	No
		PM		C	A	B	NO
35	Street C & Street A	AM	DNE	A	DNE	A	No
		PM		A		A	No
36	Marina Pkwy & Marina Way	AM	B	C	B	B	No
		PM	B	**F**	B	B	**Proposed Project**
37	J Street & Street A	AM	B	**F**	DNE	D	**Proposed Project**
		PM	B	**F**		D	**Proposed Project**
38	Street B & Bay Blvd	AM	DNE		DNE		No
		PM					No
39	Gaylord Secondary Driveway & E Street	AM	DNE		B	C	No
		PM			C	C	No

TABLE 5.5-7
Phase III Intersection Operations
(Proposed Project and No Land Trade Alternative)

Intersection		Peak Hour	Proposed Project Phase III Baseline LOS	Proposed Project Phase III Plus Project LOS	No Land Trade Phase III Baseline LOS	No Land Trade Phase III Plus Project LOS	DIRECT IMPACT?
1	E Street & I-5 Southbound Off-Ramp	AM	A	A	C	C	No
		PM	B	B	D	D	No
2	E Street & I-5 Northbound On-Ramp	AM	C	C	C	C	No
		PM	C	C	B	B	No
3	E Street & Woodlawn Ave	AM	C	C	C	C	No
		PM	C	C	C	C	No
4	E Street & Broadway	AM	C	C	C	C	No
		PM	D	D	D	D	No
5	E Street & 5th Ave	AM	A	A	A	A	No
		PM	A	A	A	A	No
6	E Street & 4th Ave	AM	B	B	B	B	No
		PM	C	C	C	C	No
7	E Street & 3rd Ave	AM	B	B	B	B	No
		PM	C	C	C	C	No
8	F Street & Bay Blvd	AM	A	A	C	C	No
		PM	B	C	D	D	No
9	F Street & Broadway	AM	B	B	B	B	No
		PM	C	C	C	C	No
10	F Street & 5th Ave	AM	A	A	A	A	No
		PM	A	A	B	B	No
11	F Street & 4th Ave	AM	B	B	B	B	No
		PM	C	C	C	C	No
12	F Street & 3rd Ave	AM	B	B	B	B	No
		PM	C	C	C	C	No
13	H Street & Gaylord Driveway	AM	C	C	B	B	No
		PM	C	C	B	B	No
14	H Street & Bay Blvd	AM	A	A	C	C	No
		PM	C	C	C	C	No

TABLE 5.5-7 (Cont.)

Intersection		Peak Hour	Proposed Project Phase III Baseline LOS	Proposed Project Phase III Plus Project LOS	No Land Trade Phase III Baseline LOS	No Land Trade Phase III Plus Project LOS	DIRECT IMPACT?
15	H Street & I-5 Southbound Ramps	AM	C	C	B	B	No
		PM	E	E	C	C	No
16	H Street & I-5 Northbound Ramps	AM	B	B	B	C	No
		PM	D	D	C	C	No
17	H Street & Woodlawn Ave	AM	D	D	C	D	No
		PM	D	D	C	C	No
18	H Street & Broadway	AM	C	D	C	C	No
		PM	D	D	D	D	No
19	H Street & 5th Ave	AM	B	B	B	B	No
		PM	C	C	C	C	No
20	H Street & 4th Ave	AM	C	C	C	C	No
		PM	D	D	D	D	No
21	H Street & 3rd Ave	AM	C	C	C	C	No
		PM	C	C	C	C	No
22	J Street & Bay Blvd	AM	C	C	B	B	No
		PM	D	**E**	B	C	**Proposed Project**
23	J Street & I-5 Southbound Ramps	AM	B	B	B	B	No
		PM	C	C	C	C	No
24	J Street & I-5 Northbound Ramps	AM	E	E	E	E	No
		PM	D	**E**	C	C	**Proposed Project**
25	J Street & Woodlawn Ave	AM	B	B	B	B	No
		PM	B	B	B	B	No
26	J Street & Broadway	AM	B	B	B	B	No
		PM	C	C	C	D	No
27	L Street & Bay Blvd	AM	A	A	B	B	No
		PM	B	C	C	D	No
28	L Street & Industrial Blvd	AM	C	C	C	C	No
		PM	C	C	C	C	No
29	L Street & Broadway	AM	B	B	B	B	No
		PM	C	C	D	D	No
30	I-5 Southbound Ramps & Bay Blvd	AM	A	A	B	B	No

TABLE 5.5-7 (Cont.)

Intersection		Peak Hour	Proposed Project Phase III Baseline LOS	Proposed Project Phase III Plus Project LOS	No Land Trade Phase III Baseline LOS	No Land Trade Phase III Plus Project LOS	DIRECT IMPACT?
		PM	B	B	B	B	No
31	I-5 Northbound Ramps & Industrial Blvd	AM	C	C	B	B	No
		PM	C	D	C	C	No
32	F Street & E Street	AM	B	B	B	C	No
		PM	A	A	C	C	No
33	H Street & Street A	AM	B	B	B	B	No
		PM	B	B	B	B	No
34	Street C & Marina Pkwy	AM	B	B	B	B	No
		PM	C	C	B	B	No
35	Street C & Street A	AM	A	A	B	B	No
		PM	A	A	B	B	No
36	Marina Pkwy & Marina Way	AM	A	A	B	C	No
		PM	B	B	B	**F**	**No Land Trade**
37	J Street & Street A	AM	A	B	D	**F**	**No Land Trade**
		PM	B	D	D	**F**	**No Land Trade**
38	Street B & Bay Blvd	AM	DNE	A	DNE	A	No
		PM		A		A	No
39	Gaylord Secondary Dwy & E Street	AM	DNE		C	C	No
		PM			C	C	No

TABLE 5.5-8
Phase IV Intersection Operations
(Proposed Project and No Land Trade Alternative)

Intersection		Peak Hour	Proposed Project Phase IV Baseline LOS	Proposed Project Phase IV Plus Project LOS	No Land Trade Phase IV Baseline LOS	No Land Trade Phase IV Plus Project LOS	DIRECT IMPACT?
1	E Street & I-5 SB Off-Ramp	AM	C	C	C	C	No
		PM	C	**F**	D	D	**Proposed Project**
2	E Street & I-5 NB On-Ramp	AM	C	D	C	C	No
		PM	C	C	C	C	No
3	E Street & Woodlawn Ave	AM	D	C	C	C	No
		PM	C	C	D	D	No
4	E Street & Broadway	AM	C	C	C	D	No
		PM	D	D	E	E	No
5	E Street & 5th Ave	AM	A	A	A	A	No
		PM	A	A	A	A	No
6	E Street & 4th Ave	AM	B	B	B	B	No
		PM	D	D	D	D	No
7	E Street & 3rd Ave	AM	B	B	B	B	No
		PM	C	C	D	D	No
8	F Street & Bay Blvd	AM	B	B	C	C	No
		PM	C	D	E	E	No
9	F Street & Broadway	AM	B	B	B	B	No
		PM	D	D	E	E	No
10	F Street & 5th Ave	AM	A	A	A	A	No
		PM	A	A	B	B	No
11	F Street & 4th Ave	AM	B	B	B	B	No
		PM	C	C	C	C	No
12	F Street & 3rd Ave	AM	B	B	B	B	No
		PM	C	C	D	D	No
13	H Street & Gaylord Dwy	AM	B	C	B	B	No
		PM	C	C	B	C	No
14	H Street & Bay Blvd	AM	A	A	C	C	No
		PM	C	C	C	C	No

TABLE 5.5-8 (Cont.)

Intersection		Peak Hour	Proposed Project Phase IV Baseline LOS	Proposed Project Phase IV Plus Project LOS	No Land Trade Phase IV Baseline LOS	No Land Trade Phase IV Plus Project LOS	DIRECT IMPACT?
15	H Street & I-5 SB Ramps	AM	B	B	C	C	No
		PM	D	D	D	D	No
16	H Street & I-5 NB Ramps	AM	D	D	C	C	No
		PM	C	C	D	D	No
17	H Street & Woodlawn Ave	AM	F	F	F	F	No
		PM	F	F	F	F	No
18	H Street & Broadway	AM	D	D	D	D	No
		PM	E	F	E	E	No
19	H Street & 5th Ave	AM	B	B	B	B	No
		PM	D	D	D	D	No
20	H Street & 4th Ave	AM	D	D	D	D	No
		PM	D	D	D	D	No
21	H Street & 3rd Ave	AM	C	C	C	C	No
		PM	C	C	C	C	No
22	J Street & Bay Blvd	AM	C	D	B	B	No
		PM	D	**E**	C	C	**Proposed Project**
23	J Street & I-5 SB Ramps	AM	B	B	B	B	No
		PM	C	C	C	C	No
24	J Street & I-5 NB Ramps	AM	E	E	E	E	No
		PM	C	C	C	C	No
25	J Street & Woodlawn Ave	AM	B	B	B	B	No
		PM	B	B	B	B	No
26	J Street & Broadway	AM	B	B	B	B	No
		PM	C	C	D	D	No
27	L Street & Bay Blvd	AM	A	B	B	B	No
		PM	C	C	D	D	No
28	L Street & Industrial Blvd	AM	C	C	C	C	No
		PM	C	C	C	C	No
29	L Street & Broadway	AM	B	B	B	B	No
		PM	D	D	D	D	No
30	I-5 SB Ramps & Bay Blvd	AM	A	A	B	B	No

TABLE 5.5-8 (Cont.)

	Intersection	Peak Hour	Proposed Project Phase IV Baseline LOS	Proposed Project Phase IV Plus Project LOS	No Land Trade Phase IV Baseline LOS	No Land Trade Phase IV Plus Project LOS	DIRECT IMPACT?
		PM	B	B	B	B	No
		AM	C	C	C	C	No
31	I-5 NB Ramps & Industrial Blvd	PM	D	D	C	C	No
		AM	B	B	C	C	No
32	F Street & E Street	PM	B	C	C	C	No
		AM	B	B	B	B	No
33	H Street & Street A	PM	B	B	B	C	No
		AM	B	B	B	B	No
34	Street C & Marina Pkwy	PM	C	C	B	C	No
		AM	A	A	B	B	No
35	Street C & Street A	PM	B	B	B	B	No
		AM	A	A	B	B	No
36	Marina Pkwy & Marina Way	PM	B	D	B	B	No
		AM	C	C	A	A	No
37	J Street & Street A	PM	E	**F**	A	A	**Proposed Project**
		AM	A	A	A	A	No
38	Street B & Bay Blvd	PM	A	A	A	A	No
		AM	B	B	C	C	No
39	Gaylord Secondary Dwy & E Street	PM	B	C	C	D	No

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c. Roadway Segment Analysis

i. Phase I

Under Phase I conditions, the following roadway segments would operate at an unacceptable LOS and would require mitigation:

- E Street (F Street to Bay Boulevard) (LOS D)
- E Street (Bay Boulevard to I-5 Ramps) (LOS F)
- Bay Boulevard (H Street to J Street).

In assessing the impacts of the No Land Trade Alternative on the existing roadway network, it was determined another connection to access I-5 is needed to alleviate some of the traffic on E Street. For that reason, H Street would be extended from I-5 to Street A and would be built as a 2-lane Class III Collector. The extension of H Street would cause a redistribution of traffic in the project area. Under such conditions, the following roadway segments would be impacted and would require additional mitigation:

- H Street (west of Marina Parkway) (LOS F)
- H Street (Marina Parkway to Street A) (LOS F)
- H Street (Street A to I-5 Ramps) (LOS F)
- Bay Boulevard (E Street to F Street) (LOS E).

As discussed in the Traffic Impact Analysis, with implementation of mitigation, the above listed roadway segments would operate at an acceptable LOS.

ii. Phase II

Under Phase II conditions, the following roadway segments would operate at an unacceptable LOS and would require mitigation:

- E Street (F Street to Bay Boulevard) (LOS D)
- H Street (west of Marina Parkway) (LOS D)
- J Street (Bay Boulevard to I-5 Ramps) (LOS D)
- Street A (Street C to J Street) (LOS F).

The mitigation required to improve the operating conditions of these roadway segments to an acceptable LOS consists of:

- Widening E Street between F Street and Bay Boulevard to a 6-lane Major Street
- Widening H Street west of Marina Parkway to a 3-lane Class II Collector
- Widening J Street between Bay Boulevard and the I-5 Ramps to a 6-lane Major Street
- Widening Street A between Street C and J Street to a 4-lane Class I Collector.

These improvements would restore the LOS to the roadway segments to an acceptable level.

iii. Phase III

Under Phase III conditions, the following roadway segments would operate at an unacceptable LOS and would require mitigation:

- E Street (H Street to Gaylord Driveway) (LOS E)
- J Street (Street A to Bay Boulevard) (LOS D)
- Bay Boulevard (F Street to H Street) (LOS D)
- Street A (H Street to Street C) (LOS D).

The mitigation required to improve the operating conditions of these roadway segments to an acceptable LOS consists of:

- Widening E Street between H Street and Gaylord Driveway to a 2-lane Class II Collector
- Widening J Street between Street A and Bay Boulevard to a 6-lane Major Street
- Widening Bay Boulevard to a 6-lane Major Street
- Widening Bay Boulevard between F Street and H Street to a 2-lane Class II Collector
- Widening Street A between H Street and Street C to a 2-lane Class II Collector.

These improvements would restore the LOS on the roadway segments to an acceptable level.

iv. Phase IV

Under Phase IV conditions, the following roadway segments would operate at an unacceptable LOS and would require mitigation:

- H Street (I-5 Ramps to Broadway) (LOS E).

The mitigation required to improve the operating condition of the above-listed roadway segment to an acceptable LOS consists of widening H Street between the I-5 Ramps and Broadway to a 6-lane Gateway Street. This improvement would restore the LOS to an acceptable level.

Table 5.5-4 summarizes the proposed mitigations to be implemented throughout the project. With mitigation, each of the impacted roadway segments listed above would operate at an acceptable LOS.

Tables 5.5-9 through *5.5-12* compare the roadway segment operations under the Proposed Project scenario against the No Land Trade Alternative scenario. As shown in the tables, impacts to roadway segments under the No Land Trade Alternative scenario would be slightly greater than impacts encountered under Proposed Project conditions.

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TABLE 5.5-9
Phase I Roadway Segment Operations
(Proposed Project and No Land Trade Alternative)

Roadway Segment	Proposed Project Phase I Baseline		Proposed Project Phase I Plus Project		No Land Trade Phase I Baseline		No Land Trade Phase I Plus Project		DIRECT IMPACT?
	ADT	LOS	ADT	LOS	ADT	LOS	ADT	LOS	
E Street									
H Street to Gaylord Dwy (c)	DNE		4,085	A	DNE		5,999	B	No
Gaylord Dwy to F Street	DNE				DNE		10,160	A	No
F Street to Bay Boulevard	DNE				25,541	B	33,247	**D**	**No Land Trade**
Bay Blvd to I-5 Ramps	14,520	A	20,064	A	36,740	E	40,523	**F**	**No Land Trade**
I-5 Ramps to Woodlawn Ave	26,800	A	27,995	A	39,145	D	39,974	D	No
Woodlawn Ave to Broadway	26,560	A	27,988	A	38,199	C	38,888	D	No
Broadway to 3rd Ave	18,410	A	19,468	A	28,286	B	28,745	B	No
Lagoon Drive/F Street									
Marina Pkwy to Bay Blvd	3,600	A	11,562	**F**	-	-	-	-	**Proposed Project**
E Street to Bay Blvd	DNE				7,407	A	9.861	A	No
Bay Blvd to Broadway	4,350	A	5,746	A	10,699	A	12,123	A	No
Broadway to 4th Ave	10,310	B	11,202	C	11,369	C	12,253	C	No
4th Ave to 3rd Ave	10,440	A	10,755	A	11,146	A	11,376	A	No
H Street									
West of Marina Parkway (c)	–	–	10,077	**F**	DNE		7,188	C	**Proposed Project**
Marina Parkway to Street A	DNE				DNE		115	A	No
Street A to I-5 Ramps	DNE				DNE				-
I-5 Ramps to Broadway	31,760	B	34,270	C	32,819	B	35,081	C	No
Broadway to 3rd Avenue	27,430	B	28,755	B	28,489	B	29,040	B	No
J Street									
Marina Parkway to Street A[2]	8,620	A	19,745	A	8,620	A	17,903	A	No
Street A to Bay Blvd[2]	8,620	A	24,335	B	8,620	A	17,903	A	No
Bay Blvd to I-5 Ramps	17,200	A	28,653	C	17,200	A	22,445	A	No
I-5 Ramps to Broadway	17,280	A	20,329	A	17,280	A	18,503	A	No
L Street									

TABLE 5.5-9 (Cont.)

Roadway Segment	Proposed Project Phase I Baseline		Proposed Project Phase I Plus Project		No Land Trade Phase I Baseline		No Land Trade Phase I Plus Project		DIRECT IMPACT?
	ADT	LOS	ADT	LOS	ADT	LOS	ADT	LOS	
Bay Blvd to Industrial Way	15,100	A	17,329	A	15,100	A	16,937	A	No
Industrial Way to Broadway	20,400	A	21,874	A	20,400	A	21,365	A	No
Marina Parkway									
Lagoon Dr to G Street	3,950	A	10,050	**F**	DNE				**Proposed Project**
Sandpiper Way to J Street	290	A	DNE		DNE				No
H Street to Street C	Different classification		13,587	B	3,272	A	12,786	A	No
Street C to J Street	Different classification		13,587	B	1,509	A	11,138	A	No
Bay Boulevard									
E Street to F Street	9,700	B	16,004	**F**	13,933	E	13,933	E	**Proposed Project**
F Street to H Street	2,810	A	3,421	A	3,769	A	7,938	**D**	**No Land Trade**
H Street to J Street	2,710	A	6,810	C	3,769	A	7,938	**D**	**No Land Trade**
J Street to L Street	3,040	A	6,696	A	3,040	A	5,534	A	No
L Street to I-5 Ramps	3,520	A	4,403	A	3,520	A	4,209	A	No
South of I-5 Ramps	3,520	A	4,403	A	3,520	A	4,209	A	No
Broadway									
C Street to E Street	26,010	B	26,304	C	28,127	C	28,345	C	No
E Street to H Street	25,670	B	26,312	C	27,434	C	27,893	C	No
H Street to K Street	29,570	C	30,316	D	29,570	C	30,247	D	No
K Street to L Street	26,600	C	26,878	C	26,660	C	26,830	C	No
South of L Street	27,060	C	27,512	C	27,060	C	27,313	C	No
Street A									
H Street to Street C	DNE				DNE		230	A	No
Street C to J Street	DNE		4,590	A	DNE				No
J Street to B Street	DNE				DNE				No
Street C									
Marina Parkway to Street A					DNE		115	A	No

TABLE 5.5-10
Phase II Roadway Segment Operations
(Proposed Project and No Land Trade Alternative)

Roadway Segment	Proposed Project Phase II Baseline		Proposed Project Phase II Plus Project		No Land Trade Phase II Baseline		No Land Trade Phase II Plus Project		DIRECT IMPACT?
	ADT	LOS	ADT	LOS	ADT	LOS	ADT	LOS	
E Street									
H Street to Gaylord Dwy	6,034	B	6,041	B	4,505	A	5,750	B	No
Gaylord Dwy to F Street	DNE				DNE		10,160	A	No
F Street to Bay Boulevard	2,294	A	2,612	A	29,943	C	30,694	**D**	**No Land Trade**
Bay Blvd to I-5 Ramps	15,834	A	17.567	A	38,865	C	39,531	C	No
I-5 Ramps to Woodlawn Ave	28,355	A	29,818	B	39,929	D	40,672	D	No
Woodlawn Ave to Broadway	27,988	A	28,744	A	38,888	D	39,631	D	No
Broadway to 3rd Ave	19,468	A	19,972	A	28,746	B	29,242	B	No
Lagoon Dr/F Street									
Marina Pkwy to Bay Blvd	DNE				DNE				No
E Street to Bay Blvd	DNE				9,690	A	10,436	A	No
Bay Blvd to Broadway	5,746	A	6,099	A	12,077	A	12,327	A	No
Broadway to 4th Ave	11,202	C	11,202	C	12,254	C	12,503	C	No
4th Ave to 3rd Ave	10,755	A	11,007	A	11,376	A	11,624	A	No
H Street									
West of Marina Parkway (c)	15,028	C	15,672	C	9,657	B	12,148	**D**	**No Land Trade**
Marina Parkway to Street A	14,263	A	18,106	A	9,576	B	10,075	B	No
Street A to I-5 Ramps	29,621	C	40,005	**F**	26,742	A	33,066	B	**Proposed Project**
I-5 Ramps to Broadway	35,402	C	40,325	D	35,231	C	37,685	C	No
Broadway to 3rd Avenue	28,755	B	31,113	C	29,041	B	31,514	C	No
J Street									
Marina Parkway to Street A[2]	15,784	A	19,540	A	10,969	A	13,486	A	No
Street A to Bay Blvd[2]	18,998	A	31,404	D	10,969	A	26,760	C	No
Bay Blvd to I-5 Ramps	24,675	B	33,657	D	19,536	A	32,360	**D**	**No Land Trade**
I-5 Ramps to Broadway	19,198	A	21,881	A	18,446	A	21,380	A	No
L Street									

TABLE 5.5-10 (Cont.)

Roadway Segment	Proposed Project Phase II Baseline		Proposed Project Phase II Plus Project		No Land Trade Phase II Baseline		No Land Trade Phase II Plus Project		DIRECT IMPACT?
	ADT	LOS	ADT	LOS	ADT	LOS	ADT	LOS	
Bay Blvd to Industrial Way	17,329	A	19,345	A	18,919	A	19,671	A	No
Industrial Way to Broadway	21,874	A	21,874	A	23,345	A	23,861	A	No
Marina Parkway									
Lagoon Dr to G Street	DNE				DNE				No
Sandpiper Way to J Street	DNE				DNE				No
H Street to Street C	7,991	A	9,088	A	6,355	A	8,832	A	No
Street C to J Street	7,991	A	12,039	A	3,904	A	7,942	A	No
Bay Boulevard									
E Street to F Street	9,984	B	10,104	B	14,059	A	15,295	A	No
F Street to H Street	4,318	A	4,608	A	4,121	A	6,841	C	No
H Street to J Street	5,451	A	5,479	A	6,351	B	6,356	B	No
J Street to L Street	6,696	A	10,918	C	5,535	A	8,506	A	No
L Street to I-5 Ramps	4,403	A	5,159	A	4,209	A	4,952	A	No
South of I-5 Ramps	4,403	A	5,159	A	4,209	A	4,952	A	No
Broadway									
C Street to E Street+	26,304	C	26,325	C	28,346	C	28,347	C	No
E Street to H Street	26,312	C	26,816	C	27,894	C	28,390	C	No
H Street to K Street	30,316	D	30,840	D	30,248	D	30,744	D	No
K Street to L Street	26,878	C	27,130	C	26,830	C	27,078	C	No
South of L Street					27,313	C	28,056	C	No
Street A									
H Street to Street C	DNE		7,297	C	736	A	7,141	C	No
Street C to J Street	5,246	A	12,630	**F**	DNE		13,332	**F**	**Both**
J Street to B Street	DNE				DNE				No
Street C									
Marina Parkway to Street A	DNE		2,085	A	58	A	3,519	A	No

TABLE 5.5-11
Phase III Roadway Segment Operations
(Proposed Project and No Land Trade Alternative)

Roadway Segment	Proposed Project Phase III Baseline		Proposed Project Phase III Plus Project		No Land Trade Phase III Baseline		No Land Trade Phase III Plus Project		DIRECT IMPACT?
	ADT	LOS	ADT	LOS	ADT	LOS	ADT	LOS	
E Street									
H Street to Gaylord Dwy	6,041	B	6,040	B	5,750	B	8,760	E	No
Gaylord Dwy to F Street	DNE						10,760	A	No
F Street to Bay Boulevard	2,612	A	2,972	A	30,694	D	31,040	B	No
Bay Blvd to I-5 Ramps	17,567	A	17,926	A	39,531	C	39,710	C	No
I-5 Ramps to Woodlawn Ave	29,818	B	30,081	B	40,672	D	40,952	D	No
Woodlawn Ave to Broadway	28,744	A	29,011	B	39,631	D	39,912	D	No
Broadway to 3rd Ave	19,972	A	20,154	A	29,242	B	29,428	C	No
Lagoon Drive/F Street									
Marina Pkwy to Bay Blvd	DNE				DNE				No
E Street to Bay Blvd	DNE				10,436	A	10,440	A	No
Bay Blvd to Broadway	6,099	A	6,487	A	12,077	A	12,724	A	No
Broadway to 4th Ave	11,202	12,503	C	C	12,254	C	12,774	C	No
4th Ave to 3rd Ave	11,007	11,624	A	A	11,376	A	12,184	A	No
H Street									
West of Marina Parkway	15,672	C	16,578	C	12,148	D	15,923	C	No
Marina Parkway to Street A	18,106	A	18,046	A	10,075	B	10,513	C	No
Street A to I-5 Ramps	40,005	D	39,986	D	33,066	B	33,150	B	No
I-5 Ramps to Broadway	40,325	D	42,844	D	37,685	C	40,307	D	No
Broadway to 3rd Avenue					31,514	B	31,969	C	No
J Street									
Marina Parkway to Street A	19,540	A	25,592	B	13,486	A	19,600	A	No
Street A to Bay Blvd	31,404	D	35,303	C	26,760	C	30,751	**D**	**No Land Trade**
Bay Blvd to I-5 Ramps	33,657	D	37,608	C	32,360	D	34,812	B	No
I-5 Ramps to Broadway						A	22,181	A	No
L Street									
Bay Blvd to Industrial Way	19,345	A	20,045	A	18,919	A	19,671	A	No
Industrial Way to Broadway	21,874	A	24,265	A	23,345	A	23,861	A	No

TABLE 5.5-11 (Cont.)

Roadway Segment	Proposed Project Phase III Baseline		Proposed Project Phase III Plus Project		No Land Trade Phase III Baseline		No Land Trade Phase III Plus Project		DIRECT IMPACT?
	ADT	LOS	ADT	LOS	ADT	LOS	ADT	LOS	
Marina Parkway									
Lagoon Dr to G Street	DNE				DNE				No
Sandpiper Way to J Street	DNE				DNE				No
H Street to Street C	9,088	A	10,079	A	8,832	A	9,513	A	No
Street C to J Street	12,039	A	13,403	B	7,942	A	8,923	A	No
Bay Boulevard									
E Street to F Street	10,104	B	11,436	C	15,295	A	16,800	B	No
F Street to H Street	4,608	A	5,127	A	6,841	C	7,672	**D**	**No Land Trade**
H Street to J Street	5,479	A	6,369	B	6,356	B	6,962	A	No
J Street to L Street	10,918	C	11,356	C	8,506	A	9,637	B	No
L Street to I-5 Ramps	5,159	A	5,834	A	4,952	A	5,721	A	No
South of I-5 Ramps	5,159	A	5,571	A	4,952	A	5,382	A	No
Broadway									
C Street to E Street	26,325	C	26,390	C	28,347	C	28,410	C	No
E Street to H Street	26,816	C	26,994	C	28,390	C	28,578	C	No
H Street to K Street	30,840	D	31,324	D	30,744	D	31,238	D	No
K Street to L Street	27,130	C	27,217	C	27,078	C	27,174	C	No
South of L Street	28,228	C	28,371	C	28,056	C	28,212	C	No
Street A									
H Street to Street C	7,297	C	8,238	**D**	7,141	C	8,214	**D**	**Both**
Street C to J Street	12,630	A	14,220	A	13,332	A	15,208	A	No
J Street to B Street	DNE		3,461	A	DNE		5,081	A	No
Street B									
Street A to Bay Boulevard	DNE		1,746	A	DNE		2,078	A	No
Street C									
Marina Parkway to Street A	2,085	A	1,993	A	3,519	A	3,520	A	No

TABLE 5.5-12
Phase IV Roadway Segment Operations
(Proposed Project and No Land Trade Alternative)

Roadway Segment	Proposed Project Phase IV Baseline		Proposed Project Phase IV Plus Project		No Land Trade Phase IV Baseline		No Land Trade Phase IV Plus Project		DIRECT IMPACT?
	ADT	LOS	ADT	LOS	ADT	LOS	ADT	LOS	
E Street									
H Street to Gaylord Dwy	4,800	A	5,809	B	8,760	A	9,084	B	No
Gaylord Dwy to F Street	7,872	A	9,089	B	10,760	A	11,108	A	No
F Street to Bay Boulevard	7,872	A	16,279	**F**	31,040	B	32,146	B	**Proposed Project**
Bay Blvd to I-5 Ramps	19,230	A	26,289	B	39,710	C	39,791	C	No
I-5 Ramps to Woodlawn Ave	29,433	B	33,608	C	40,952	D	41,106	D	No
Woodlawn Ave to Broadway	29,011	B	32,472	B	39,912	D	40,006	D	No
Broadway to 3rd Ave	20,154	A	23,063	A	29,428	C	29,487	C	No
Lagoon Drive/F Street									
Marina Pkwy to Bay Blvd	DNE				DNE				No
E Street to Bay Blvd	DNE		2,630	A	10,440	A	10,602	A	No
Bay Blvd to Broadway	6,577	A	8,325	A	12,724	A	12,891	A	No
Broadway to 4th Ave	11,787	C	12,275	C	12,774	C	12,824	D	No
4th Ave to 3rd Ave	11,557	A	12,997	A	12,184	A	13,399	A	No
H Street									
West of Marina Parkway (c)	11,373	A	12,520	A	15,923	C			No
Marina Parkway to Street A	14,269	A	15,961	A	10,513	C	11,496	C	No
Street A to I-5 Ramps	33,116	B	34,588	C	33,150	B	34,507	C	No
I-5 Ramps to Broadway	42,844	D	49,203	**F**	40,307	D	46,283	**E**	**Both**
Broadway to 3rd Avenue	31,509	C	32,063	C	31,969	C	32,187	C	No
J Street									
Marina Parkway to Street A[2]	24,460	B	26,949	C	19,600	A	20,183	A	No
Street A to Bay Blvd[2]	36,346	C	38,567	C	30,751	B	31,447	B	No
Bay Blvd to I-5 Ramps	37,653	C	38,913	C	34,812	B	35,330	C	No
I-5 Ramps to Broadway	22,635	B	23,131	B	22,181	A	22,619	B	No
L Street									
Bay Blvd to Industrial Way	20,045	A	20,402	A	19,671	A	19,898	A	No
Industrial Way to Broadway	24,265	A	24,531	A	23,861	A	24,054	A	No

TABLE 5.5-12 (Cont.)

Roadway Segment	Proposed Project Phase IV Baseline		Proposed Project Phase IV Plus Project		No Land Trade Phase IV Baseline		No Land Trade Phase IV Plus Project		DIRECT IMPACT?
	ADT	LOS	ADT	LOS	ADT	LOS	ADT	LOS	
Marina Parkway									
Lagoon Dr to G Street	DNE				DNE				No
Sandpiper Way to J Street	DNE				DNE				No
H Street to Street C	9,468	A	10,856	A	9,513	A	9,872	A	No
Street C to J Street	13,098	B	14,050	B	8,923	A	9,113	A	No
Bay Boulevard									
E Street to F Street	11,472	C	12,676	**D**	16,800	B	16,880	B	**Proposed Project**
F Street to H Street	5,720	B	7,116	C	7,672	D	8,828	A	No
H Street to J Street	7,016	C	7,787	D	6,962	A	7,410	A	No
J Street to L Street	11,302	C	12,173	D	9,637	B	9,942	B	No
L Street to I-5 Ramps	5,780	A	6,347	A	5,721	A	6,196	A	No
South of I-5 Ramps	5,517	A	6,087	B	5,382	A	5,856	B	No
Broadway									
C Street to E Street	26,390	C	27,020	C	28,410	C	28,419	C	No
E Street to H Street	26,994	C	27,585	C	28,578	C	28,627	C	No
H Street to K Street	31,324	D	32,076	D	31,238	D	31,936	D	No
K Street to L Street	27,217	C	27,266	C	27,174	C	27,209	C	No
South of L Street	28,371	C	28,456	C	28,212	C	28,279	C	No
Street A									
H Street to Street C	10,504	A	11,388	A	8,214	A	9,494	B	No
Street C to J Street	16,468	A	17,741	B	15,208	A	15,707	A	No
J Street to B Street	3,838	A	4,091	A	5,081	A	5,157	A	No
Street B									
Street A to Bay Blvd	1,746	A	18,76	A	2,078	A	2,112	A	No
Street C									
Marina Parkway to Street A	2,065	A	1,993	A	3,520	A	3,620	A	No

d. Freeway Segment Analysis

As with the Proposed Project (see *Chapter 6, Cumulative Impacts*), all freeway segments would function at LOS F or worse for all phases and all freeway segments would result in cumulative impacts under the No Land Trade Alternative. This alternative would result in similar impacts to freeway segments as those identified for the Proposed Project.

e. Parking

Under the No Land Trade Alternative, a total of approximately 10,453 parking spaces would be provided at build-out, which is an excess of approximately 2,321 parking spaces required (*Table 5.5-13*). Within the Harbor District, Parcel H-18 will provide excess parking that is intended to be shared with other parcels. With the development of Parcel H-18 as office use in the No Land Trade Alternative, a parking garage on the parcel could provide up to 3,000 parking spaces. Parcels H-12, H-21, and H-23 would use the parking in Parcel H-18 as off-site or remote parking. In addition, the proposed conference hotel on H-3, while providing enough parking to meet parking requirements on site, has requested that 500 spaces be made available on H-18 for use during special events. On-street parking may occur on many of the streets within the project. This parking may provide convenient access to uses near the harbor, where remote parking is used for a portion of their off-street parking (on-street parking has not been assumed in *Table 5.5-13*). As with the Proposed Project, because more parking spaces would be provided than are required by the project, no significant impact would occur.

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TABLE 5.5-13
No Land Trade Alternative Parking Summary

Phase	Parcel	Land Use	Intensity[a]		Rate[b]			Parking Required	Parking Provided	Provided − Required
Harbor District										
II	H-1/HW-06	Yacht Club/Relocated Berths (c)	200	berths	0.7	:	berth	180	180	
IV	H-1A	Signature Park (d)	4.4	acres	12	:	acre	53	53	
I	H-3	Hotel	2000	rooms	1	:	room	2,000	2,000	
I	H-3	Hotel Restaurant	1,600	seats	0.11	:	seat	176	200	24
I	H-3	Conference Center	400	ksf	1.6	:	ksf	640	700	60
I	HP-8/HP-1	Signature Park	19.0	acres	12	:	acre	228	228	
I	H-9	Retail/Commercial	50	Ksf	4		ksf	200	200	
III	H-9	Reconfigured Marina	200	berths	0.7	:	berth	140	200	60
IV	H-12	Ferry Terminal/Restaurant	25	ksf	9.3	:	ksf	233		−233
II	H-13	Hotel	500	rooms	1	:	room	500	500	
II	H-13	Retail	200	ksf	4	:	ksf	800	800	
II	H-15	Mixed-Use Office	210	ksf	20	:	site	20	20	
II	H-15	Visitor Hotel	250	rooms	1.04	:	room	260	260	
II	H-15	Retail	84	ksf	4	:	ksf	336	336	
II	H-15	General Office	126	ksf	3	:	ksf	378	378	
II	H-17	Industrial Business Park	3.0	acres	0.11		acre	1	1	
IV	H-18	Office	100	ksf	3	:	ksf	300	3,000	2,700
III	H-21	Retail	150	ksf	4	:	ksf	600	250	−350
III	H-21	Reconfigured Marina	500	berths	0.7	:	berth	350	350	
I	H-23	Signature Park	23.0	acres	12	:	acre	276	323	47
I	HP-03	50-foot Baywalk	9.1	acres	4	:	acre	37		−37
	HP-07	Existing Marina View Park	7	acres	12	:	acre	82	82	
	HP-15	Existing Bayfront Park (e)	7	acres	12	:	acre	160	160	
II	HP-28	H Street Pier	0.8	acres	12	:	acre	10		−10
Subtotal								***7,700***	***9,961***	***2,321***

TABLE 5.5-13 (Cont.)

Phase	Parcel	Land Use	Intensity[a]		Rate[b]			Parking Required	Parking Provided	Provided − Required
Otay District										
III	O-1	RV Park	236	DU	1	:	DU	236	236	
III	OP-3	South Park	64.0	acres	4	:	acre	256	256	
III	O-3	Industrial Park Use (f)						492	492	
Subtotal										
							Total	***8,192***	***10,453***	***2,321***
TOTAL										

SOURCE: Kimley-Horn and Associates, Inc. 2006.
ksf = thousand square feet; DU = dwelling units
[a]The Intensity of each land use was provided by the Port of San Diego.
[b]The parking rate was provided by the Port of San Diego.
[c]H-1 includes a 10 ksf Community Boating Center to support the slips that generates a parking demand of 40 spaces.
[d]The Signature Park includes a 5,000 seat amphitheater,and the parking requirement rate for the amphitheater is equal to 0.34 spaces per seat; therefore, 1,700 spaces will be required to serve the amphitheater during special events.
[e]Parking includes 100 boat trailer spaces and 80 vehicle spaces.
[f] The size of the industrial business park is to be determined, but all required parking for the parcel will be provided on site.

5.5.3 Aesthetics/Visual Quality

The following discussion summarizes the visual impact assessment prepared by KTU+A (June 2006) for the Proposed Project and two alternatives, including the No Land Trade Alternative. The study is included as *Appendix 4.4-1* to this report.

The project site includes undeveloped and developed areas. Developed areas include industrial uses in the Harbor and Otay Districts, as well as a small number of retail uses (restaurants) near the harbor. The Sweetwater District is undeveloped. Consequently, vistas of the waterfront from current viewing locations outside the property are already affected by the presence of large industrial buildings and other structures in the Harbor and Otay Districts. These contribute to the somewhat disorganized urban landscape that characterizes large areas of the project. Additional discussion of existing site conditions and criteria for determining significant impacts are discussed in *Section 4.4, Aesthetics/Visual Quality*.

The No Land Trade Alternative would substantially change views of the project site, primarily from across San Diego Bay, Sweetwater Marsh NWR/Chula Vista Nature Center, and from viewing locations along I-5 and E, F, and H Streets. Impacts to visual quality, view quality, and visual character from implementation of this alternative would be greater than those for either the Proposed Project or the Harbor Park Alternative, primarily due the increased development intensity proposed for the Sweetwater District. Although a 400-foot "no development" buffer (with 200 feet of "no touch" zone) is proposed as shown on *Figure 5.5-1*, future development of residential and hotel uses in the Sweetwater District would increase the edge effects on the natural open space in the NWR, block views and spread large-scale development throughout the site. Other large-scale components of this alternative would also contribute to significant impacts by blocking views from important view corridors and by placing large buildings near natural areas. This impact would not be offset by reduced development intensities and increased open space in the Otay District.

As with the Proposed Project, phased implementation of the various project components would redevelop large areas that currently contribute to the low-quality, disorganized visual landscape of this area. The new uses would adhere to a more coherent development plan. New commercial, retail, cultural, office, hotel, residential, and open space uses would transform the landscape, as compared to the generally low-scale existing commercial/industrial and open undeveloped areas within the project boundary.

Compared to the Proposed Project, significant cumulative impacts to the E Street view corridor would be greater under the No Land Trade Alternative, due to the cumulative Midbayfront development in the Sweetwater District that would block views along this segment. Significant impacts to views from I-5 at the J Street overpass looking south would be reduced as compared to the Proposed Project because the intervening parcels in the Otay District between the freeway

and Bay would be developed with open space/RV Park; however, development of 14- to 17-story (170 to 200 feet tall) hotel, retail, mixed-use office and commercial recreation uses on H-13 and H-14 would still result in a significant view corridor impact from this location. In addition, these impacts are contrary to the goals and policies set forth in the PMP and City planning documents. Impacts to views and inconsistency with planning goals and policies would be significant.

Similar to the Proposed Project, implementation of mitigation measures detailed in *Section 4.4, Aesthetics/Visual Quality,* would reduce the significant impacts, but not to below a level of significance. The No Land Trade Alternative's impacts on Aesthetics/Visual Quality remain significant and unmitigable and would be greater than impacts which may result from the Proposed Project, primarily due to the higher-intensity development proposed in the Sweetwater District. As a result, the No Land Trade Alternative would not avoid or substantially reduce the significant visual quality impacts of the Proposed Project.

5.5.4 Hydrology/Water Quality

The No Land Trade Alternative would require approximately 850,000 cubic yards of imported fill, which is approximately 110,000 cubic yards more than is required for the Proposed Project. Consequently, the potential for construction-related sediment impacts would be somewhat higher with this alternative. Nevertheless, as with the Proposed Project, construction and new development under the No Land Trade Alternative would require compliance with existing water quality regulations intended to avoid or reduce impacts to water quality. Development in accordance with approved plans as permitted by the responsible agency would not be significant. However, it should be noted that comprehensive planning of the entire site may not occur. Grading could proceed as development plans are submitted if projects are proposed and reviewed individually. Drainage facilities would not be planned to address the entire site as an integrated network and could result in a greater number of drainage facilities to the Bay or, inversely, upgrades to some facilities may be delayed as parcels remain undeveloped.

Similar to the Proposed Project, the No Land Trade Alternative would result in impacts to water quality. These impacts include the increase of pollutants carried in runoff, wind-blown litter, the project's potential to disturb contaminated soils and groundwater during construction and dredge and fill operations, and worst case scenario accidents and unintentional discharges during construction activities. Implementation of mitigation measures detailed in *Section 4.5, Hydrology/Water Quality,* of this report would reduce significant impacts to hydrology and water quality under this alternative to below a level of significance. The No Land Trade Alternative's impacts on water quality would therefore be similar to the Proposed Project and would not avoid or substantially lessen the significant effects of the Proposed Project on water quality.

5.5.5 Air Quality

Under the No Land Trade Alternative, the Sweetwater District would not be developed. Construction emissions would be the same or lower for the No Land Trade Alternative as for the Proposed Project. Under the No Land Trade Alternative, the Pacifica Residential and Retail development would not be constructed on Parcel H-13; instead, a 500-room hotel and 200,000 square foot retail development would be constructed in Phase II of the project development. As construction emissions are evaluated on a maximum daily basis, a conservative evaluation would indicate that emissions would be the same as for the Proposed Project.

Operational emissions under the No Land Trade Alternative may be less than the operational emissions for Harbor District under the Proposed Project because there would be less development at the Chula Vista Bayfront. Although the overall development footprint would be smaller under this alternative than the Proposed Project, cumulative air quality impacts for the Midbayfront under this alternative would be similar or greater than the Proposed Project considering the increased development of the Sweetwater District under the approved LCP.

Tables 5.5-14, *5.5-15*, *5.5-16*, and *5.5-17* show the projected quarterly emission levels for each pollutant resulting from each phase of construction. As seen in these tables, with the exception of sulfur dioxide, all pollutant emissions are projected to exceed applicable thresholds.

TABLE 5.5-14
Projected Construction Emissions by Year Phase I (tons/quarter)

	ROG	NOx	CO	SO2	PM2.5	PM10
Area Source Emissions-Gaylord RCC	3.95	16.02	15.04	0.00	0.03	0.03
Area Source Emissions – Parks and Retail	0.26	0.04	3.21	0.00	0.01	0.01
Operation – Gaylord RCC	135.25	244.99	1,512.80	1.29	125.32	27.69
Operation – Parks and Retail	36.56	51.62	377.73	0.00	39.31	7.73
TOTAL	**176.02**	**312.67**	**1,926.57**	**1.29**	**164.67**	**35.46**
Significance Threshold	55	55	550	150	55	150
Above Threshold?	Yes	Yes	Yes	No	Yes	No

ROG = Reactive Organic Gas; NO_X = nitrogen oxide; CO = carbon oxide; SO_2 = sulfur dioxide;
PM_{10} = suspended particulates of 10 microns or less in diameter

TABLE 5.5-15
Projected Construction Emissions by Year Phase II (tons/quarter)

	ROG	NOx	CO	SO2	PM2.5	PM10
Area Source Emissions	10.79	11.38	23.85	0.00	0.06	0.06
Operation	285.05	424.21	2,962.70	1.79	352.52	69.14
TOTAL	**295.84**	**432.59**	**2,986.55**	**1.79**	**352.58**	**69.20**
Significance Threshold	55	55	550	150	55	150
Above Threshold?	Yes	Yes	Yes	No	Yes	Yes

ROG = Reactive Organic Gas; NO_X = nitrogen oxide; CO = carbon oxide; SO_2 = sulfur dioxide;
PM_{10} = suspended particulates of 10 microns or less in diameter

TABLE 5.5-16
Projected Construction Emissions by Year Phase III (tons/quarter)

	ROG	NOx	CO	SO2	PM2.5	PM10
Area Source Emissions	6.21	4.21	9.89	0.00	0.03	0.03
Operation	43.12	61.14	423.98	0.40	78.67	15.26
TOTAL	**49.33**	**65.35**	**433.87**	**0.40**	**78.70**	**15.29**
Significance Threshold	55	55	550	150	55	150
Above Threshold?	No	Yes	No	No	No	No

ROG = Reactive Organic Gas; NO_X = nitrogen oxide; CO = carbon oxide; SO_2 = sulfur dioxide;
PM_{10} = suspended particulates of 10 microns or less in diameter

TABLE 5.5-17
Projected Daily Area and Operations Emissions –No Land Trade Alternative Phase IV

	ROG	NOx	CO	SO2	PM2.5	PM10
Area Source Emissions	1.19	0.97	5.57	0.00	0.01	0.01
Operation	16.18	21.87	160.68	0.22	43.86	8.43
TOTAL	**17.37**	**22.84**	**166.25**	**0.22**	**43.87**	**8.44**
Significance Threshold	55	55	550	150	55	150
Above Threshold?	No	Yes	No	No	No	No

ROG = Reactive Organic Gas; NO_X = nitrogen oxide; CO = carbon oxide; SO_2 = sulfur dioxide;
PM_{10} = suspended particulates of 10 microns or less in diameter

Table 5.5-18 provides the projected daily area and operation emissions for all phases of the project under the No Land Trade Alternative. Emissions projected for all development phases are anticipated to exceed the standard for each criteria pollutant except SO_2.

TABLE 5.5-18
Projected Daily Area and Operations Emissions All Phases

	ROG	NOx	CO	SO2	PM2.5	PM10
Area Source Emissions	25.74	31.41	42.25	0.00	0.11	0.11
Operation	229.37	320.69	2311.44	3.26	650.25	124.94
TOTAL	**255.11**	**352.10**	**2353.69**	**3.26**	**650.36**	**125.05**
Significance Threshold	55	55	550	150	55	150
Above Threshold?	Yes	Yes	Yes	No	Yes	Yes

ROG = Reactive Organic Gas; NO_X = nitrogen oxide; CO = carbon oxide; SO_2 = sulfur dioxide;
PM_{10} = suspended particulates of 10 microns or less in diameter

As can be seen from *Tables 5.5-14* through *5.5-18*, construction activities would result in significant air quality impacts for each criteria pollutant except sulfur dioxide for each phase of the project and PM_{10} after the first year of construction, during which rough grading occurs. Construction emissions are projected to exceed the standards for NO_x, CO, and ROG for during each year of construction.

The No Land Trade Alternative's significant impacts to air quality, including impacts from construction and operation of the existing and future power plant, as well as other industrial uses in and near the site, would be only partially mitigated by implementation of mitigation measures detailed in *Section 4.6, Air Quality*. Impacts would remain significant and unmitigable. Therefore, the No Land Trade Alternative's impacts on the applicable air quality plan would be similar to the impacts which may result from the Proposed Project. As a result, this alternative would not avoid or substantially lessen the significant effects of the Proposed Project for this issue.

Implementation of mitigation measures detailed in *Section 4.6, Air Quality,* of this report, reduces the significant impacts due to construction emissions but not to a less than significant level. Because the extent of grading required is greater than for the Proposed Project, construction emissions would still exceed the criteria and remain significant after mitigation. The No Land Trade Alternative's construction impacts on the applicable air quality plan would be greater than the impacts which may result from the Proposed Project. As a result, this alternative would not avoid or substantially reduce the significant construction effects of the Proposed Project.

As with the Proposed Project, implementation of mitigation measures detailed in *Section 4.6, Air Quality,* of this report would reduce the significant impacts related to exposure of sensitive receptors to substantial pollutant concentrations. The No Land Trade Alternative's impacts would be similar to the impacts which may result from the Proposed Project. As a result, this alternative would not avoid or substantially lessen the significant effects of the Proposed Project for this issue.

5.5.6 Noise

The area of potential impact is generally the same for this alternative as for the Proposed Project and Harbor Park Alternative. As new development occurs under the No Land Trade Alternative, increased traffic and associated noise would be expected. Any new uses would be reviewed to ensure they conform to adopted noise ordinances prior to approval.

Traffic noise impacts would result from future traffic on project site roadways and off-site roadways similar to the impacts associated with the Proposed Project and the Harbor Park Alternative. Impacts and mitigation are discussed in *Section 4.7, Noise*, of this report.

Table 5.5-19 summarizes the traffic and noise increases to off-site roadways as a result of the No Land Trade Alternative. The greatest increase in noise at the completion of Phase I is located on F Street between Woodlawn Avenue and Broadway. The noise level increase is 2.1 dB(A). The greatest increase in noise at project build-out, located on F Street between Woodlawn Avenue and Broadway, is 3.2 dB(A) as compared to the noise level increase is 2.2 dB(A) associated with the Proposed Project. This noise increase is greater than 3 dB(A) and is, therefore, significant. All other increases in noise are less than 3 dB(A) and are not significant.

TABLE 5.5-19
No Land Trade Alternative Traffic and Noise Increase to Off-Site Roadways

Roadway Segment	ADT	Medium Trucks	Heavy Trucks (mph)	Speed	CNEL at 50 Feet from Centerline	60	65	70	75
E Street H Street to Gaylord Driveway	9084	1%	0%	35	64	110	35	-	-
Gaylord Driveway to F St	11108	1%	0%	35	64	135	45	-	-
F St to Bay Blvd	32146	1%	0%	35	69	295	125	40	-
Bay Blvd to I-5 Ramps	39791	1%	1%	35	71	375	170	55	-
I-5 Ramps to Woodlawn Ave	41106	1%	1%	35	71	380	175	60	-
Woodlawn Ave to Broadway	40006	1%	1%	35	71	375	170	55	-
Broadway to 3rd Ave	29487	1%	1%	35	69	605	130	40	-
F Street									
E St to Bay Blvd	10602	1%	0%	35	64	130	40	-	-
Bay Blvd to Broadway	12891	1%	0%	35	65	155	50	-	-
Broadway to 4th Ave	12824	1%	0%	35	65	155	50	-	-
4th Ave to 3rd Ave	13399	1%	0%	35	63	105	35	-	-
H Street									
West of Marina Pkwy	16332	1%	0%	25	62	80	25	-	-
Marina Pkwy to Street A	11496	2%	1%	35	65	165	55	-	-
Street A to I-5 Ramps	34507	2%	1%	35	70	355	155	50	-
I-5 Ramps to Broadway	46283	1%	1%	35	71	410	190	65	-
Broadway to 3rd Ave	32187	1%	1%	35	70	325	140	45	-

TABLE 5.5-19

Roadway Segment	ADT	Medium Trucks	Heavy Trucks (mph)	Speed	CNEL at 50 Feet from Centerline	60	65	70	75
J Street									
Marina Pkwy to Street A	20183	1%	0%	35	67	215	80	25	-
Street A to Bay Blvd	31447	1%	0%	35	69	290	120	35	-
Bay Blvd to I-5 Ramps	35330	1%	1%	35	70	345	150	50	-
I-5 Ramps to Broadway	22619	1%	1%	35	68	255	100	35	-
L Street									
Bay Blvd to Industrial Way	19898	2%	1%	35	68	245	95	30	-
Industrial Way to Broadway	24054	2%	1%	35	69	280	115	35	-
Marina Pkwy									
H St to Street C	9872	1%	0%	35	64	120	40	-	-
Street C to J St	9113	1%	0%	35	674	110	35	-	-
Bay Boulevard									
E St to F St	16880	1%	1%	35	67	210	75	25	-
F St to H St	8828	1%	1%	35	64	120	40	-	-
H St. to J St	7410	1%	1%	35	63	105	35	-	-
J St to L St	9942	1%	1%	35	65	135	45	-	-
L St to I-5 Ramps	6196	1%	1%	35	62	85	30	-	-
South of I-5 Ramps	5856	1%	1%	35	62	85	25	-	-
Broadway									
C St to E St	28419	1%	1%	35	69	295	125	40	-
E St to H St	28627	1%	1%	35	69	300	125	40	-
H St to K St	31936	1%	1%	35	70	325	140	45	-
K St to L St	27209	1%	1%	35	69	290	120	40	-
South of L St	28279	1%	1%	35	69	295	125	40	-
Street A									
H St to Street C	9494	1%	1%	35	64	130	45	-	-
Street C to J St	15707	1%	1%	35	67	200	70	25	-
J St to Street B	5157	1%	1%	35	62	75	25	-	-
Street B									
Street A to Bay Blvd	2112	2%	1%	35	58	30	-	-	-
Street C									
Marina Pkwy to Street A	3620	1%	0%	35	60	45	-	-	-

Table 5.5-20 shows a comparison of the existing and future noise levels at 50 feet from the centerlines of Project roadways. The delta is the future noise level minus the existing noise level.

TABLE 5.5-20
Comparison Table of Existing and Future Noise Levels

Roadway	Segment	Existing Noise Level at 50 Feet	Future Noise Level at 50 Feet	Delta
E Street	• H St to Gaylord Driveway	-	64	N/A
	• Gaylord Driveway to F St	-	64	N/A
	• F St to Bay Blvd	-	69	N/A
	• Bay Blvd to I-5 Ramps	-	71	N/A
	• I-5 Ramps to Woodlawn Ave	69	71	+2
	• Woodlawn Ave to Broadway	69	71	+2
	• Broadway to 3rd Ave	67	69	+2
F Street	• **E St (Marina Pkwy) to Bay Blvd**	**60**	**64**	**+4**
	• **Bay Blvd to Broadway**	**60**	**65**	**+5**
	• Broadway to 4th Ave	64	65	+1
	• 4th Ave to 3rd Ave	62	63	+1
H Street	• West of Marina Pkwy	-	62	N/A
	• Marina Pkwy to Street A	-	65	N/A
	• **Street A (Bay Blvd) to I-5 Ramps**	**67**	**70**	**+3**
	• I-5 Ramps to Broadway	69	71	+2
	• Broadway to 3rd Ave	69	70	+1
J Street	• **Marina Pkwy to Street A**	**63**	**67**	**+4**
	• **Street A to Bay Blvd**	**63**	**69**	**+6**
	• **Bay Blvd to I-5 Ramps**	**67**	**70**	**+3**
	• I-5 Ramps to Broadway	67	68	+1
L Street	• Bay Blvd to Industrial Way	67	68	+1
	• Industrial Way to Broadway	68	69	+1
Marina Pkwy	• **H St (G St) to Street C (Sandpiper Way)**	**53**	**64**	**+11**
	• **Street C (Sandpiper Way)_ to J St**	**53**	**64**	**+11**
Bay Blvd	• E St to F St	65	67	+2
	• **F St to H St**	**58**	**64**	**+6**
	• **Street C (H St) to J St**	**58**	**63**	**+5**
	• **J St to L St**	**59**	**65**	**+6**
	• L St to I-5 Ramps	**60**	62	+2
	• South of I-5 Ramps	60	62	+2
Broadway	• C St to E St	69	69	0
	• E St to H St	69	69	0
	• H St to K St	69	70	+1
	• K St to L St	69	69	0
	• South of L St	69	69	0
Street A	• H St to Street C	-	64	N/A
	• Street C to J St	-	67	N/A
	• J St to Street B	-	62	N/A
Street B	• Street A to Bay Blvd	-	58	N/A
Street C	• Marina Pkwy to Street A	-	60	N/A

The segment of E Street between Gaylord Driveway and F Street would experience a future noise level of 64 dB(A) at 50 feet. The closest point of the habitat to the roadway is approximately 90 feet from the centerline of E Street. The highest noise level at the habitat would be approximately 62 dB(A). This noise level exceeds the wildlife noise threshold of 60 dB(A) during breeding season at habitat in the F & G Street Marsh. The segment of Marina Parkway between Street C and J Street would experience an increase of approximately 11 dB(A). The Pacifica development site is adjacent to Marina Parkway between Street C and J Street. This impact is being analyzed and mitigated by a cumulative assessment of traffic noise for that component of the project. Therefore, the noise level increase along this segment is considered to be not significant.

There are no noise-sensitive land uses adjacent to the remainder of the roadway segments that would experience an increase of 3 dB(A) or more. Therefore, the noise level increases along these segments are considered to be not significant.

As with the Proposed Project, mitigation measures discussed in *Section 4.7, Noise*, would reduce noise impacts to below a level of significance. After implementation of these measures, the No Land Trade Alternative's impacts would be similar to the impacts which may result from the Proposed Project. As a result, the No Land Trade Alternative would not avoid or substantially reduce the significant effects of noise resulting from the Proposed Project.

5.5.7 Biological Resources (Terrestrial and Marine)

Terrestrial and marine biology impacts associated with selection of the No Land Trade Alternative would be similar to those identified for the Proposed Project, as the development area is generally the same (see *Section 4.8, Terrestrial Biological Resources,* of this report). Mass grading of most of the Harbor District would occur in Phase I. Remaining areas of the Harbor and Otay Districts would be graded in Phases II and III. Improvements to the marina and navigation channel would be the same as for the Proposed Project in Phase III. The major difference between this alternative and the Proposed Project is that, under this alternative, higher-intensity development would be expected in the Sweetwater District in accordance with the approved Midbayfront LCP. This could result in greater indirect impacts to the adjacent wildlife refuge and shoreline habitats. Significant impacts to marine resources would be the same as identified for the Proposed Project.

a. Terrestrial Biological Resources

Under this alternative, total impacts to vegetation communities from development would be the less than those identified in *Table 4.8-3* for the Proposed Project. *Table 5.5-21* summarizes the No Land Trade Alternative impacts to sensitive vegetation communities and provides a comparison of impacts with the Proposed Project. Impacts to sensitive vegetation communities

would be less than the impacts which may result from the Proposed Project. However, it should be noted that impacts on sensitive vegetation communities within the Sweetwater District that are avoided under the No Land Trade Alternative would be impacted by cumulative development of the approved LCP within the City's jurisdiction in the Sweetwater District. Therefore, in consideration of cumulative impacts, the No Land Trade Alternative would result in similar or greater direct impacts on biological resources. In addition, the No Land Trade Alternative would place high-intensity development in close proximity to sensitive biological resources within the Sweetwater Marsh NWR, which would result in increased indirect impacts on these resources, when compared to the Proposed Project.

TABLE 5.5-21
Comparison Table for Impacts to Sensitive Vegetation Communities

Vegetation Type	No Land Trade	Proposed Project
Disturbed Diegan coastal sage scrub	0 acres	7.89 acres
Disturbed riparian	0 acres	3.09 acres
Disturbed seasonal pond	9.13 acres	9.13 acres
Mulefat scrub	0 acres	0.11 acre
Non-native grassland	63.73 acres	63.73 acres
Southern coastal salt marsh	1.48 acres	1.59 acres

As with the Proposed Project, management practices, including (1) BMPs to control the unintentional release of excavated sediments and water into the local environment, and (2) operational procedures to minimize disturbance impacts to birds, will reduce temporary impacts related to development of the No Land Trade Alternative, but, as noted above, the placement of high-intensity uses in close proximity to the Sweetwater Marsh would result in a higher likelihood of adverse indirect impacts.

Significant impacts would result from grading and construction of the site which would modify existing habitat that supports sensitive species, including nesting and foraging raptors. As discussed in *Section 4.8, Terrestrial Biological Resources*, a number of birds protected by the MBTA as well as endangered or threatened species could or do occur on site. In addition, construction of a new pier and replacement/relocation of docks would result in an approximate 2-acre reduction to surface water foraging habitat. Significant impacts to the above would be reduced to below a level of significance after implementation of mitigation measures detailed in *Section 4.8, Terrestrial Biological Resources.*

Impacts to biological resources will be reduced by limiting drainage and overspill of lighting and noise into preserve areas as well as prohibiting use of non-invasives and restricting public access in sensitive preserve areas. In addition, significant impacts would be mitigated through the implementation of measures that require issuance of an HLIT Permit and preserve lands protection, as detailed in *Section 4.8, Terrestrial Biological Resources*.

USACE Jurisdictional Wetlands. The No Land Trade Alternative would impact a total of 64.22 acres of USACE jurisdictional waters within the Harbor and Otay Districts of the Port's jurisdiction, as compared to 64.34 acres for the Proposed Project. This is due to the elimination of the Sweetwater District from the No Land Trade Alternative. Significant impacts to USACE jurisdictional waters due to harbor and marina reconfiguration would be similar to the Proposed Project and would be reduced to below a level of significance.

CDFG Jurisdictional Wetlands. Impacts to 1.1 acres of CDFG jurisdictional resources would occur in the Port's jurisdictional area only, within the Harbor and Otay Districts. These impacts would occur during Phase II when grading and preparation of the site for future development would result in permanent and temporary removal of riparian habitat. This impact would be similar with the Proposed Project.

CCC Jurisdictional Wetlands. Under the Proposed Project, impacts to CCC wetlands have been avoided to the maximum extent practicable. Some of the mapped waterways have been identified as potential wetlands for the Coastal Commission. Identification of these areas as CCC wetlands requires documentation of ponding for a minimum of 7 consecutive days. There is currently no indication that ponding of that duration has occurred; therefore, identification of CCC jurisdiction has not been made. In addition, the Otay District contains areas formerly occupied by an industrial facility that may not be subject to CCC jurisdiction.

Impacts at the J Street Channel would be similar to the Proposed Project. Removal of riprap and placement of bulkhead for marina improvements would be consistent with the Coastal Act but would result in significant biological impacts similar to the Proposed Project. Implementation of mitigation measures detailed in *Section 4.8, Terrestrial Biological Resources,* would reduce the impact to below a level of significance.

There would be no impact to the Telegraph Creek Channel under this alternative, as the bridge crossing would not be needed and no improvements to the channel would be made. In addition, the bridge proposed in the Harbor District over the HP-5 drainage ditch would not be required under this alternative; therefore, related impacts would not exist.

Similar to the Proposed Project, the establishment of an ecological buffer on Parcel OP-1A would result in temporary impacts to 0.05 acre of CCC wetlands, 0.04 acre of potential CCC wetlands, and 1.50 acres of former industrial areas that are in the process of remediation. Impacts to the 0.05 acre of CCC wetlands would be the same as the Proposed Project and would be significant. The impacts to the 1.50 acres of former industrial areas proposed for roads, grading, drainage improvements, development would only be significant if the CCC asserts jurisdiction. Implementation of mitigation measures identified for the Proposed Project would reduce the impacts to below a level of significance.

Because the Port would retain jurisdiction over existing lands in the Harbor and Otay Districts, the City's Wetland Protection Program would not apply to resources in these areas. The development of the Sweetwater District, which would remain in the City's jurisdiction, is discussed at a program level, and development impacts to biological resources would be refined during subsequent environmental review. Impacts under the jurisdiction of the RWQCB would also be similar to the Proposed Project and would require mitigation. Finally, indirect impacts to preserve lands and refuges from development within the City's jurisdiction would result in a significant indirect impact. Development within the City's jurisdiction would be required to conform to the City's adjacency guidelines. Mitigation for impacts to wetlands would be required in accordance with the ratios identified in mitigation measures for the Proposed Project detailed in *Section 4.8, Terrestrial Biological Resources.*

Similar to the Proposed Project, proposed development on the Bayfront under the No Land Trade Alternative, along with cumulative development of the approved LCP land uses within the Sweetwater District, may result in increased bird mortality through bird strikes. Mitigation measures for the Proposed Project would similarly reduce impacts under the No Land Trade Alternative to below a level of significance by implementing design measures for lighting, glass and reflection, building articulation, and landscaping.

b. Marine Resources

As for the Proposed Project, direct impacts to eelgrass in open bay waters from phased construction of the proposed pier, modifications to the marina, and realignment of the navigation channel as well as indirect impacts from shading due to construction of the pier, would be significant. Implementation of mitigation measures detailed in *Section 4.9, Marine Biological Resources*, would provide replacement eelgrass habitat at a 1.2:1 ratio to reduce impacts to less than significant. No permanent impacts to the eelgrass community in the project area would occur. Mitigation would initially increase the area of eelgrass in the South Bay and is expected to fully recover to naturally occurring densities within 5 years of transplantation. No unavoidable adverse impacts to marine biological resources as a result of the No Land Trade Alternative are expected.

Similar to the Proposed Project, impacts to salt marsh and mudflats from Phase III removal of riprap and construction of bulkhead in the commercial harbor on Parcel HW-3, temporary impact to water quality from construction of the H Street Pier, direct impacts from Phase III dredging at the South Bay Boatyard, and indirect lighting impacts on marine resources from construction and operation of project elements would be significant. Implementation of mitigation measures identified in *Section 4.9, Marine Biological Resources,* of this report, which require preparation and implementation of a restoration plan, and approval by USACE of a sediment plan, work plan, plan for dredging and storage of dredge material to protect water quality, and a lighting

plan. Approval and implementation of these plans as described in *Section 4.9, Marine Biological Resources,* would reduce impacts to below a level of significance.

Implementation of the No Land Trade Alternative would not avoid or substantially reduce the significant biological effects of the Proposed Project.

5.5.8 Cultural Resources

Impacts to cultural resources under the No Land Trade Alternative are the same as for the Proposed Project. No significant impacts have been identified.

5.5.9 Paleontological Resources

The area of potential impact is generally the same as for the Proposed Project and Harbor Park Alternative. Impacts would be the same as those identified for the Proposed Project. Implementation of procedures and techniques described in *Section 4.11, Paleontological Resources,* to be performed under the supervision of a qualified paleontologist or geologist, would reduce impacts to below a level of significance. The No Land Trade Alternative's impacts on paleontological resources would be similar to the impacts which may result from the Proposed Project. As a result, the No Land Trade Alternative would not avoid or substantially reduce the significant effects of the Proposed Project on paleontological resources.

5.5.10 Hazards and Hazardous Materials/Public Safety

Hazardous materials are present on the project site as discussed in *Section 4.12, Hazards and Hazardous Materials/Public Safety,* of this report. Portions of the site are currently under a Cleanup and Abatement Order (CAO No. 98-08, revised April 2, 1998), and measures are being implemented to address past contamination within the Harbor and Otay Districts. Similar to the Proposed Project, implementation of Cleanup and Abatement Order programs and other remediation will clean up existing contamination prior to development of any affected site.

Development of potentially contaminated sites and dewatering activities in areas of contaminated groundwater, as well as other potential encounters of contamination during excavation, demolition, or construction may result in significant impacts similar to the Proposed Project. Implementation of mitigation measures outlined in *Section 4.12, Hazards and Hazardous Materials/Public Safety,* would reduce effects to below a level of significance.

While the No Land Trade Alternative eliminates residential development in the Harbor District, thereby reducing the potential for exposure of sensitive receptors to contaminants in these areas, cumulative development in the Midbayfront in accordance with the approved LCP would result in additional residential development and sensitive receptors in the Sweetwater District as

compared to the Proposed Project. As a result, the No Land Trade Alternative would not avoid or substantially reduce the significant impacts of hazards on the Proposed Project.

5.5.11 Public Services

In order to assess impacts to public services associated with the No Land Trade Alternative in relation to the Proposed Project, an evaluation of the No Land Trade Alternative against each public services threshold was conducted. *Section 5.5.11.1* provides an impact analysis and *Section 5.5.11.2* provides a summary of impacts and mitigation pertaining to the No Land Trade Alternative.

5.5.11.1 Impact Analysis of the No Land Trade Alternative

a. Fire Services

Fire protection and emergency medical services would be provided by the City of Chula Fire Department within the plan area. Development of mixed-use commercial/office space and hotels would strain the existing fire services and/or facilities expected to serve the project site. Without assurance that existing facilities would be adequately staffed and equipped, the Fire Department cannot guarantee that response times of less than 7 minutes can be maintained City-wide in 80 percent of the cases. As a result, the project would create a significant impact. The City's Fire Department considers the Bayfront area to be a geographic location that is underserved by the fire station network. While the Proposed Project would include construction of a new fire station on H-17, the No Land Trade Alternative does not include a new fire station. The Port is precluded by law from providing municipal facilities (including fire protection facilities) on Port land. Under the No Land Trade Alternative, the City would not acquire Parcel H-17 from the Port, and no suitable location for a new fire facility has been identified. A significant impact on fire protection services would continue to exist under the No Land Trade Alternative. This impact on fire protection facilities is greater than the Proposed Project and would result in a significant impact.

b. Police Protection

While no residential units are proposed in the Harbor and Otay Districts, development under the No Land Trade Alternative would assume development in the Sweetwater District in accordance with the approved Midbayfront LCP. Current land entitlements as approved under the LCP would allow high-density residential units, a hotel and ancillary retail, and commercial uses in the Sweetwater District. These uses include 1,550 dwelling units, 2,028 hotel rooms, 150,000 square feet of retail, 140,000 square feet of office, and nearly 19 acres of parks. Impacts to police services would therefore be similar to the Proposed Project.

c. Parks and Recreation

Park land requirements are established in the City's Municipal Code Section 17.10.040 for properties within the City's jurisdiction. The Municipal Code requires park acreage dedication and improvement based on development type. Residential and transient motels/hotels are required to dedicate 196 square feet of parkland for each unit. The No Land Trade Alternative proposes no residential units in the Harbor District, but more hotel rooms than the Proposed Project. The land uses for the Sweetwater District are assumed to be the same as what was adopted in the Midbayfront LCP, which includes residential and hotels. As with the Proposed Project, development of the No Land Trade Alternative would result in temporary, short-term significant impacts to park and recreation levels of service due to temporary closure of existing area parks during project construction. The introduction of residential units and hotel rooms within the City's jurisdiction in the project area would result in potentially significant impacts due to an increase in demand for developed parkland and recreation facilities.

d. Schools and Library Services

Although no residential units are proposed in the Harbor and Otay Districts under the No Land Trade Alternative, land uses for the Sweetwater District are assumed to be the same as what was adopted in the Midbayfront LCP, which includes high-density residential. Similar to the Proposed Project, a new student population will result in a need for additional school services and additional library square footage.

5.5.11.2 Public Services Summary and Mitigation

As with the Proposed Project, significant impacts to parks and recreation, schools, and library services would be mitigated to below a level of significance with implementation of mitigation measures detailed in *Section 4.13, Public Services*. Impacts to police protection would be similar to the Proposed Project.

A significant impact on fire protection services would continue to exist under the No Land Trade Alternative. This impact on fire protection facilities is greater than the Proposed Project and would result in a significant impact. In order to address this impact to fire services, the City would have to provide additional equipment and/or facilities as deemed necessary by the City's Fire Department to ensure adequate fire protection services. The changes that may result from the provision of additional equipment or facilities as may be identified in the City's Fire Master Plan would be the responsibility and within the jurisdiction of the City and not the Port.

5.5.12 Public Utilities

Impacts to public utilities would be similar to those resulting from the Proposed Project. Ultimate build-out under the No Land Trade Alternative would require upgrades to sewer and water facilities to meet increased demand over time.

The projected water demand for the No Land Trade Alternative is presented by district in *Table 5.5-22* below:

TABLE 5.5-22
No Land Trade Alternative Water Demand Summary (MGD)

Development Area	Average Demand	Max Day Demand
Harbor District	0.975	1.949
Otay District	0.068	0.184
TOTAL	**1.514**	**3.216**

SOURCE: Kimley-Horn and Associates, Inc. 2006.

This alternative would result in an average daily potable water demand of approximately 1.514 MGD and a maximum daily demand of 3.216 MGD at build-out, compared to an average day potable water demand of approximately 2.006 MGD and a maximum daily demand of 4.154 MGD at build-out for the Proposed Project. Consequently, average and maximum daily demand for potable water would be less than the Proposed Project (a daily average of approximately 0.49 MGD less) for development under the No Land Trade Alternative. This impact is expected to be less than significant, similar to the Proposed Project. The lower average and maximum daily water demand for the No Land Trade Alternative does not, however, take into account the increased average and maximum daily water demand for the Sweetwater District that will result from land uses under the approved Midbayfront LCP that are not included in the Proposed Project. The No Land Trade Alternative will therefore result in an indirect impact on water demand for the Bayfront area.

Based on the same generation rates and sewage generation estimates used for the Proposed Project, the No Land Trade Alternative is expected to generate a total average flow of approximately 1.118 MGD and an approximate peak flow of 2.180 MGD. *Table 5.5-23* shows the sewage generation summary by district for the No Land Trade Alternative. The projected sewage generation broken down by parcel for this alternative is contained in *Appendix 4.5-2*.

TABLE 5.5-23
No Land Trade Alternative Sewage Generation Summary
(MGD)

Development Area	Average Flow	Peak Flow
Harbor District	0.762	1.425
Otay District	0.042	0.105
TOTAL	**1.118**	**2.180**

This alternative would generate a smaller daily average flow compared to the Proposed Project by approximately 0.21 MGD (1.118 MGD as compared to 1.328 MGD for the Proposed Project). The emergency storage requirements would remain the same as projected for the Proposed Project, however, because the analysis considered all of the alternatives and used the highest calculated peak flow for each district in order to present a worst case analysis. With implementation of the mitigation measures detailed in *Section 4.14, Public Utilities,* required by the Proposed Project, impacts to sewer services would be less than significant. As with water demand, the smaller average sewer flow for the No Land Trade Alternative does not take into account the higher average and maximum sewer flow for the Sweetwater District that will result from land uses under the approved Midbayfront LCP that do not exist under the Proposed Project. These additional uses would result in an indirect impact on sewer services resulting from the No Land Trade Alternative.

The estimated solid waste generation for this alternative is presented in *Table 5.5-24*. As compared to the Proposed Project, this alternative would generate less solid waste by approximately 3,688 pounds or 1.8 tons per day. The Otay Landfill is permitted to accept 5,830 tons per day and is currently accepting about 4,500 tons per day. The 8.3 tons per day are not significant because landfill capacity would not be exceeded for between 16 and 21 years.

TABLE 5.5-24
Solid Waste Estimates for the No Land Trade Alternative

		Phases				Total	
		I		II			
Category	Unit	pounds/ day	Total Units	pounds/ day	Total Units	pounds/ day	Total Units
Cultural	thousand square feet	700	100			700	100
Ferry	thousand square feet			125	25	125	25
Hotel	rooms	5,500	2,750	1,916	958	7,416	3,708
Office	thousand square feet	2,616	436	720	120	3,336	556
Retail	thousand square feet	1,404	234	900	150	2,304	384
RV Park	units			472	236	472	236
TOTAL		**10,220**		**7,949**		**18,169**	

The required sewer and water pipelines may not be as comprehensively planned and installed to meet all future requirements at build-out. Nevertheless, the required mitigation measures and the guidelines for the provision of public utility services in Chula Vista identified for the Proposed Project would also be applicable to this alternative.

The No Land Trade Alternative's overall impacts on potable water, sewer, and solid waste resources would be similar to the impacts which may result from the Proposed Project. Implementation of mitigation measures detailed in *Section 4.14, Public Utilities,* to address water availability, sewer, and solid waste management would reduce these impacts to below a level of significance. The No Land Trade Alternative would not avoid or substantially reduce the significant effects of the Proposed Project on public utilities.

5.5.13 Seismic/Geologic Hazards

The area of potential impact is generally the same as for the Proposed Project and Harbor Park Alternative. The No Land Trade Alternative's impacts on the issue of Seismic/Geologic Hazards would be the same or similar to those resulting from the Proposed Project. Mitigation measures detailed in *Section 4.15, Seismic/Geologic Hazards,* of this report would reduce the significant impacts associated with exposure of structures to strong ground motion and surface rupture, liquefaction and seismically induced settlement, and expansive soils to below a level of significance. As a result, the No Land Trade Alternative would not avoid or substantially reduce the significant effects of the Proposed Project on seismic and geologic hazards.

5.5.14 Energy

The area of potential impact and intensity of development over time is generally the same as for the Proposed Project. Under both development scenarios, site development and resulting growth would increase energy demand due to increased population and intensity of uses.

Electricity consumption resulting from implementation of this alternative represents a substantial increase in use over the existing use on the project site. Similar to the Proposed Project, the increased demand for energy resulting from development under this alternative and the potential to exceed the available supply would result in a significant impact. In consideration of SDG&E's Long Term Resource Plan, this demand would not result in a direct need for new or expanded facilities, however. SDG&E assumes an annual average growth rate of 2 percent with respect to system peak load (Katsapis 2004), with the actual timing and quantity of resources to be procured based on near-term circumstances (McClenahan 2004). SDG&E has indicated that, without an increased import capacity of at least 500 MW, there would be a long-term grid reliability deficiency (Brown 2004). This is discussed in *Chapter 6, Cumulative Impacts*.

To address long-term energy needs, SDG&E has filed a resource plan with CPUC, which proposes a mix of conservation, demand response, generation, and transmission to provide reliable energy for the next 20 years (http://www.sdenergy.org/uploads/7-9-04SDG&E_LTRP.pdf).

Because there are more hotel rooms in the No Land Trade Alternative and more square feet of office use in the Harbor and Otay Districts, this alternative uses slightly more energy than the Proposed Project. It does represent a reduction in energy use associated with residential uses and commercial uses in the Harbor District, although cumulative impacts would result from increased residential and commercial development in the Sweetwater District in accordance with the Midbayfront LCP. This alternative therefore does not represent a substantial reduction in energy use compared to the Proposed Project.

Mitigation measures detailed in *Section 4.16, Energy,* include design measures that reduce energy consumption in building design along with the SDG&E efforts for long-term energy supply as outlined in their filing with the CPUC. These mitigation measures would reduce the significant impacts on energy to below a level of significance. Selection of this alternative would not avoid or substantially reduce the significant effect of the Proposed Project on energy.

5.5.15 Population and Housing

The No Land Trade Alternative's direct impacts on housing and population would be less than the Proposed Project because no residences would be constructed in the Harbor District. However, in consideration of the approved Midbayfront LCP, which would allow for residential and commercial uses, cumulative impacts to population and housing would be significant. As with the Proposed Project, this alternative would not displace any existing residences and no housing would need to be constructed elsewhere. This alternative would result in similar impacts to population and housing as the Proposed Project and therefore does not avoid or substantially reduce the significant effect of the Proposed Project in this area.

5.6 Reduced Overall Density Alternative

The Reduced Overall Density Alternative (30 percent reduction) was selected for consideration to provide a development alternative that would reduce overall building mass and height and intensity of uses in order to reduce overall impacts. Because this alternative would develop 400 fewer residential units and reduce the square footage of all other proposed uses by one-third, this alternative would reduce the following significant impacts of the Proposed Project: traffic/circulation, parking, aesthetics/visual quality, hydrology/water quality, air quality, noise, public services, public utilities, energy, and population/housing.

The Reduced Overall Density Alternative retains all uses proposed for the project but provides for a 30 percent overall reduction of floor area/residential units throughout all development areas. *Table 5.6-1* summarizes the proposed land uses under this alternative.

5.6.1 Land/Water Use Compatibility

A 30 percent reduction in overall density would result in similar impacts as described for the Proposed Project. An amendment to plans and policies of the City's LCP/LUP and General Plan and to the PMP would still be required as would CCC approval.

5.6.2 Traffic/Circulation and Parking

The Reduced Overall Density Alternative includes a 30 percent overall reduction of floor area/residential units throughout all development areas of the Proposed Project. The alternative would generate less traffic and a decrease in the demand for parking throughout the Bayfront area relative to the Proposed Project. The alternative does not cause any roadways operating at LOS C or better to operate at LOS D or worse. Therefore, direct impacts to roadway segments identified for the Proposed Project would be partially eliminated. Selection of this alternative would improve LOS F operations identified for the Proposed Project on Marina Parkway segments to an acceptable level. Cumulative impacts along Bay Boulevard would remain.

Finally, reductions in overall development would reduce parking requirements. With less developed area, sufficient parking space would be available to serve the proposed uses. Parking impacts would be less than significant.

TABLE 5.6-1
Reduced Overall Density Alternative Summary of Land Uses

District, Phase, Parcel Number	Proposed Use	Approximate Program Range	Maximum Stories	Maximum Height (feet)
Sweetwater District				
Phase IV				
S-1	Resort Hotel	19 acres	1 to 6	30 to 70
S-3	Mixed-Use Office/Commercial Recreation	6 acres	1 to 2	15 to 30
S-4	Office	6 acres	6	90
Harbor District				
Phase I				
H-3	Resort Conference Center RCC Hotel RCC Conference Space RCC Restaurant RCC Retail	 1050 to 1,400 rooms 280,000 square feet 70,000 square feet 14,000 square feet	 Up to 21 N/A Incl in RCC Incl in RCC	 175 to 210 90 Incl in RCC Incl in RCC
H-13/H-14	Residential and Ancillary Retail	1,100 units 10,500 square feet	3 to 14	50 to 155
H-17	Fire Station	9,500 square feet	1	27
H-18	Interim Surface Parking Lot	1,100 spaces	N/A	N/A
Phase II				
H-9	Retail/Commercial Recreation and Marina Support	18,000 to 35,000 square feet	1 to 2	15 to 30
H-15	Mixed-Use Office/Commercial Recreation and Hotel	210,000 to 295,000 square feet		65 to 95
H-23	Resort Hotel and Cultural/Retail	350 rooms 140,000 square feet	7 to 18 1 to 2	140 to 210 20 to 45
Phase III				
H-21	Retail/Commercial Recreation and Marina Support	52,500 to105,000	1 to 2	15 to 30
Phase IV				
H-1	Community Boating Center	9,000 to 14,000 square feet	1 to 2	15 to 30
H-12	Ferry Terminal and Restaurant	7,000 to 17,500 square feet	1 to 2	15 to 30
H-18	Mixed-Use Office/Commercial Recreation and Collector Parking Garage	70,000 office; 770 to 2,100 parking	4 to 7	60 to 110
Otay District				
Phase III				
O-3A, O-3B	RV Park	175 to 236 spaces	1 to 2	11 to 25

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5.6.3 Aesthetics/Visual Quality

As with the Proposed Project, implementation of the Reduced Overall Density Alternative would result in substantial changes to landforms and visual quality throughout the Bayfront area. This alternative would reduce the density within the Bayfront area below that of the Proposed Project. A 30 percent overall reduction would result in an equivalent reduction in the mass and scale of the buildings, either through reduced heights and/or reduced lot coverage. If building heights were maintained, there would be greater corridors between the buildings. This potential for reduction in overall scale and mass of major elements of the project would result in an overall reduction in significant impacts to visual quality, view quality, and visual character. Selection of this alternative would require evaluation of more specific design plans showing heights and scale of buildings.

Because the existing condition is open and because the significance of impacts to view quality stems, in part, from the conversion of a primarily open area to a more urbanized development, this alternative would still result in impacts to the public views. Views of the project would be visible from such locations as National City to the north, Imperial Beach to the south, and the eastern shoreline of the Silver Strand. This would be a significant impact.

5.6.4 Hydrology/Water Quality

The impacts to water quality resulting from surface runoff and potential contamination from polluted runoff would from be reduced with the Reduced Overall Density Alternative, due to an increase of open space and park uses and less impermeable surface area. Other impacts to hydrology and water quality would be similar to the Proposed Project. As with the Proposed Project, new development would be required to comply with existing water quality regulations intended to avoid or reduce impacts to water quality. Development in accordance with approved plans as permitted by the responsible agency would not be significant.

5.6.5 Air Quality

The Reduced Overall Density Alternative would generate less traffic and reduce pollutant emissions resulting from construction. Air quality impacts would be incrementally less from the Proposed Project under this alternative. As with the Proposed Project, this alternative would not be consistent with the growth assumptions used to generate the RAQS, because it proposed land use changes that require an amendment to the General Plan upon which the current RAQS is based. It, therefore, is in conflict with an applicable air quality plan which would be a significant impact.

Table 5.6-2 illustrates the projected reduction of 30 percent in the emissions for the operation of the project. While the alternative represents a substantial reduction in emissions, it would still

result in air quality impacts in excess of the standard. Because the footprint of the project would not change under this alternative, construction emissions during rough grading would be the same as the Proposed Project. Impacts would remain significant and unmitigable.

TABLE 5.6-2
Standard Comparison Projected Daily Area/Operations Emissions All Phases
(pounds/day)

	ROG	NOx	CO	SO_2	$PM_{2.5}$	PM10
Total Proposed Project	808.06	841.16	7448.08	6.42	131.6	625.93
Reduced Project	565.64	588.81	5213.65	4.49	92.12	438.15
Standard	55.0	55.0	550.0	150.0	55.0	150.

ROG-Reactive Organic Gas; NO_x – nitrogen oxide; CO – carbon oxide; SO_x – sulfur dioxide; PM_{10} – suspended particulates of 10 microns or less in diameter.

5.6.6 Noise

The Reduced Overall Density Alternative includes a 30 percent reduction of floor area/residential units throughout all development areas over that of the Proposed Project. This would generate less traffic; therefore, noise impacts associated with traffic would also be reduced under this alternative. While noise levels on these roads would increase as a result of this alternative, the increased noise levels would be less than the noise levels under the Proposed Project.

Under this alternative, noise impacts associated with construction would be similar to those identified for the Proposed Project. The entire site would need to be graded and roads and infrastructure constructed. These impacts would be regulated in accordance with the existing noise ordinance to avoid significant impacts. Implementation of noise mitigation measures detailed in *Section 4.7, Noise,* of this report would reduce impacts to future residential use areas and sensitive habitat to below a level of significance.

5.6.7 Biological Resources (Terrestrial and Marine)

Impacts to biological resources as a result of the Reduced Overall Density Alternative would be the same as those identified for the Proposed Project because mass grading and development of the site would impact the same general footprint. Development intensity would be incrementally less, which would allow for larger setbacks from sensitive resources such as wetlands. A reduction in density would not avoid impacts to biological resources, however. The proposed reduction in overall development and resulting increased space between building mass, especially if development results in larger undeveloped areas adjacent to the NWR and sensitive habitat areas, would reduce the potential for impacts due to the location of uses adjacent to these

resources. Other direct and indirect impacts to sensitive birds and other wildlife, sensitive habitats (including riparian habitats and wetlands), and plant species identified for the Proposed Project would remain significant. Implementation of mitigation measures detailed in *Section 4.8, Terrestrial Biological Resources,* and *Section 4.9, Marine Biological Resources,* would be required to reduce significant impacts to below a level of significance.

5.6.8 Cultural Resources

As with the Proposed Project, the Reduced Overall Density Alternative would not impact cultural resources. The area of potential impact is the same as for the Proposed Project, and impacts would be less than significant.

5.6.9 Paleontological Resources

The area of potential impact is generally the same as for the Proposed Project. Impacts would be similar to those identified for the Proposed Project.

5.6.10 Hazards and Hazardous Materials/Public Safety

The site is currently under a Cleanup and Abatement Order for cleanup of contamination associated with past uses on the former BF Goodrich South Campus. Cleanup activities and site remediation to appropriate standards are being performed under separate approvals. As with the Proposed Project, implementation of Cleanup and Abatement Order programs and other remediation, combined with implementation of mitigation measures detailed in *Section 4.12, Hazards and Hazardous Materials/Public Safety*, would ensure that impacts are avoided or reduced to a level of less than significant prior to development of any given site.

5.6.11 Public Services

Impacts to fire and police services, parks and recreation, schools, and library services would be reduced under this alternative. Incremental impacts to services would be expected to occur over time. As for the Proposed Project, impacts would be mitigated to below a level of significance through payment of mandatory impact fees.

The Police Department currently maintains 1.07 sworn employees per 1,000 residents. If this ratio of employees to residents were maintained, a reduction of 30 percent of the residents could result in the need for one less employee than what would be required under the Proposed Project. With both the Reduced Overall Density Alternative and the Proposed Project, demand for police services would increase and additional police officers, along with related equipment, would be required to serve the project area. Similar to the Proposed Project, the additional staffing required will be provided by the City and will be funded by revenues generated by the project under the

Reduced Overall Density Alternative. Impacts to police protection services would therefore be less than significant.

Parkland requirements are established in the City's Municipal Code Section 17.10.040. This requires park acreage dedication and improvement based on development type. Multifamily dwelling units are required to dedicate 341 square feet of parkland for each unit, or approximately 3 acres per 1,000 residents. Residential and transient motels/hotels are required to dedicate 196 square feet of parkland for each unit. A 30 percent across the board reduction in the project would result in a corresponding 30 percent requirement for park acreage. The Reduced Overall Density Alternative would require 18.16 acres of parkland. As for the Proposed Project, the proposed park acreage exceeds requirements. As with the Proposed Project, development of the Reduced Overall Density Alternative would result in temporary, short-term significant impacts to park and recreation levels of service due to temporary closure of existing area parks during project construction. The introduction of residential units and hotel rooms within the City's jurisdiction in the project area would result in potentially significant impacts due to an increase in demand for developed parkland and recreation facilities.

The Proposed Project is expected to generate a net increase of approximately 1,092 students while the Reduced Overall Density Alternative would generate 764 students. As with the Proposed Project, impacts to schools from the Reduced Overall Density Alternative would be reduced to below a level of significance through the payment of school mitigation fees.

Based on a population rate of 2.159 persons per multifamily unit, the 1,100 dwelling units that would be built under the Reduced Overall Density Alternative would result in a total population of approximately 2,374 people. This population increase would require approximately 1,187 feet of library facilities. This demand is 433 square feet less than would be required for the Proposed Project, but would remain a significant impact because the City is currently below the required square footage for library space. As with the Proposed Project, mitigation measures detailed in *Section 4.13, Public Services,* would reduce the impact, but not to below a level of significance.

Fire protection and emergency medical services would be provided by the City of Chula Vista Fire Department within the plan area. Development of up to 1,100 residential units and mixed-use commercial/office space and hotels would strain the existing fire services and/or facilities expected to serve the project site. Similar to the Proposed Project, the Reduced Overall Density Alternative would increase the demand for fire protection services because of the change in land use from generally underutilized to developed land.

The City's Fire Department considers the Bayfront area to be a geographic location that is underserved by the fire station network. While the Proposed Project would include construction of a new fire station on H-17, the Reduced Overall Density Alternative does not include a new fire station. This alternative would therefore contribute to an exacerbation of the underserved

condition of the area as it relates to fire protection services. The Port is precluded by law from providing municipal facilities (including fire protection facilities) on Port land. Under the Reduced Overall Density Alternative, the City has not agreed to acquire Parcel H-17 from the Port, and no suitable location for a new fire facility has been identified. A significant impact on fire protection services would continue to exist under the Reduced Overall Density Alternative. This impact is greater than the Proposed Project and would result in a significant impact. In order to address this impact to fire services, the City would have to provide additional equipment and/or facilities as deemed necessary by the City's Fire Department to ensure adequate fire protection services. The changes that may result from the provision of additional equipment or facilities as may be identified in the City's Fire Master Plan would be the responsibility and within the jurisdiction of the City and not the Port.

5.6.12 Public Utilities

Impacts to public utilities would be less than those resulting from implementation of the Proposed Project. Ultimate build-out under the Reduced Overall Density Alternative would require upgrades to sewer and water supply facilities to meet increased demand over time. Water demand based on an across-the-board 30 percent reduction in the project.

While this alternative would use substantially less water, development has the potential to result in significant impacts to water supply because of the absence of long-term supply contracts for water. It is anticipated that the same off-site connections would be required. The required mitigation measures and the guidelines for the provision of public services and utilities in Chula Vista identified for the Proposed Project would also be applicable to the this alternative.

Because the City does not have capacity for future sewage generation, the City would not have adequate capacity to serve the additional sewage generated by the Reduced Overall Density Alternative. Although additional capacity is being negotiated in the MWWD sewer interceptor, the capacity is currently not available. However, as with the Proposed Project, mitigation would reduce impacts to below a level of significance.

5.6.13 Seismic/Geologic Hazards

Because the footprint of the Reduced Overall Density Alternative is assumed to be the same as the Proposed Project, impacts from seismic and geological hazards would also be the same or similar to those resulting from the Proposed Project.

5.6.14 Energy

Because the intensity of development would be 30 percent less than for the Proposed Project, energy consumption would be substantially less. As with the Proposed Project, implementation

of measures in accordance with the policies of the City's General Plan along with the SDG&E efforts for long-term energy supply as outlined in their filing with the CPUC that proposed a mix of conservation, demand response, generation, and transmission (http://sdenergy.org/uploads/7-9-04SDG&E LTRP.pdf) avoids a significant energy impact.

5.6.15 Population and Housing

Selection of this alternative provides for development of fewer residential units than for the Proposed Project and ultimately fewer new residents in the Chula Vista Bayfront. As with the Proposed Project, this alternative would not displace any existing residences and no housing would need to be constructed elsewhere. Impacts, therefore, would be less than significant.

5.7 Alternate L-Ditch Remediation Alternative

The L-Ditch is an approximately 4.43-acre, 50-foot-wide L-shaped feature on Parcel HP-5. The feature extends adjacent to Street C from Marina Parkway to Street A, and adjacent to Street A from Street C to Marina Parkway. The L-Ditch is a drainage feature with approximately 1.15 acres of wetland habitat. Contaminant removal from the L-Ditch is a requirement under the Clean-up and Abatement Order (CAO No. 98-08, revised April 2, 1998) issued by the RWQCB for the Goodrich South Campus remediation. A Remedial Action Plan (RAP) is being prepared to determine the most appropriate and effective manner by which remediation of the L-Ditch can be achieved to the satisfaction of the RWQCB.

The Alternate L-Ditch Remediation Alternative would involve changes to development plans proposed for Harbor District Parcels HP-5, H-13, and H-14. This alternative assumes that Parcel HP-5 (a contaminated site) would be remediated pursuant to the Cleanup and Abatement Order (CAO), which would be a separate project subject to a separate environmental review process (see *Chapter 6, Cumulative Impacts*). Under this alternative, Parcel HP-5 is assumed to have been remediated and filled pursuant to the CAO. As a result, Parcel HP-5 would no longer contain wetlands and could be developed rather than left as undeveloped as identified with the Proposed Project. Remediation and fill of approximately 8.0 acres of Parcel HP-5 would distribute the residential development for the Pacifica project over 23 acres, in lieu of the 14 acres allocated within Parcels H-13 and H-14 (see *Figure 5.7-1*). This increase in land area will allow for a reduction in height, bulk, and development density while simultaneously affording an increase in useable public open space as compared to the proposed Pacifica project. Because the wetlands would have been removed as a result of the remediation and fill required by the CAO, the 50-foot wetland buffer surrounding HP-5 would no longer be necessary. *Figures 5.7-2* and *5.7-3* illustrate conceptual plans for the residential development under the Alternate L-Ditch Remediation Alternative.

The Alternate L-Ditch Remediation Alternative proposes an alternative development approach to the proposed Pacifica development, which is a project-level component of the Proposed Project. Accordingly, this section provides a project-level comparative alternatives analysis of the Alternate L-Ditch Remediation Alternative to the Proposed Pacifica Residential and Retail Project. The Alternate L-Ditch Remediation Alternative does not propose changes to the program-level components or project-level Gaylord component; therefore this analysis does not address those components. As such, all impacts regarding those components are the same as the Proposed Project. For each technical area, impacts are compared to impacts of the proposed Pacifica development on Parcels H-13 and H-14. The analysis acknowledges where impacts would be the same as for the Proposed Project and thus, no further analysis is required.

The overall land use of Parcels H-13 and H-14 under the Alternate L-Ditch Remediation would be the same as for the proposed Pacifica project, including residential uses with various mid-rise and high-rise components, a maximum of 1,500 units, and retail as described in the Specific Plan. Although the number of residential units and area of ancillary uses would remain the same, the development would be extended into the developable area of HP-5, resulting in an increased building footprint of approximately 30 percent over the proposed Pacifica project. This increase in ground coverage will allow for an overall reduction in height and bulk of the proposed towers, as well as a reduction in development density as compared to the proposed Pacifica project. For the Alternate L-Ditch Remediation Alternative, the same number of towers would be constructed but would be spread over a larger area. Building heights under this alternative would range from 4 to 17 stories, with a maximum building height of 200 feet as opposed to 220 feet under the proposed Pacifica project.

A site plan for the development proposed under the Alternate L-Ditch Remediation Alternative on Parcels H-13, H-14, and HP-5 is shown in *Figure 5.7-1*. The differences between the Alternate L-Ditch Remediation Alternative and the proposed Pacifica project are summarized in *Table 5.7-1*. The Alternate L-Ditch Remediation Alternative is similar to the proposed Pacifica development except for the differences shown in the below table.

TABLE 5.7-1
Development Plan Comparison between the Alternate L-Ditch Remediation Alternative and Proposed Project

Component	Max Number of Units	Bldg Footprint (sq. feet)	Number of Blocks	Number of Towers	Range of Stories	Max Bldg Height	Land Use of Parcel HP-5	Wetland Buffer
Pacifica	1,500	497,900	6	11	4 to 19	220	Undeveloped	Yes
Alternate L–Ditch Remediation	1,500	381,990	7	11	4 to 17	200	Developed	N/A

As with the proposed Pacifica development, the Alternate L-Ditch Remediation Alternative would include a Port Master Plan Amendment (PMPA), GPA, and LCP Amendment to address areas located entirely within the coastal zone. The amendments to the PMPA, GPA, and LCPA would be required to address the necessary modifications to policies that would result from the proposed Alternate L-Ditch Remediation Alternative.

The L-Ditch meets the technical definition of a CCC wetland under the jurisdictional determination of the California Coastal Commission (*Figures 4.8-14* through *4.8-17*). The CCC therefore has jurisdictional determination for this land during the permitting process.

5.7.1 Land/Water Use Compatibility

Land Use impacts for this alternative would be similar to those identified for the Proposed Project. This alternative would maintain the same residential development intensity of approximately 1,500 units and the same level of retail uses and parking. Under this alternative, the remediation and fill of the L-Ditch pursuant to the CAO would allow for distribution of the residential development for the Pacifica project over 23.3 acres in lieu of the 14.6 acres under the proposed Pacifica project. This increase in land area would result in a reduction in height and bulk and development density, while also providing an increase in usable public open space. The type of uses proposed for the individual parcels remains unchanged under this alternative. Land use impacts identified for the Proposed Project would therefore be the same. While this alternative would create a larger building footprint, it would also result in a reduced overall building height, bulk, and development density for the residential buildings. The residential buildings under the Alternate L-Ditch Remediation Alternative would range from 45 to 200 feet high as opposed to 70 to 220 feet high under the Proposed Project.

To evaluate the land/water use compatibility impacts of the Alternate L-Ditch Remediation Alternative in relation to the proposed Pacifica development, an evaluation of the Alternate L-Ditch Remediation Alternative against each Land/Water Use compatibility threshold was conducted.

The Alternate L-Ditch Remediation Alternative would not result in conflicts with any policies other than those identified for the proposed Pacifica Development. Similar to the Proposed Project, impacts from this alternative would be reduced to less than significant, provided that proposed amendments to the City of Chula Vista General Plan, LCP Land Use Plan, and Bayfront Specific Plan are approved. The Alternate L-Ditch Remediation Alternative would not require any additional policy amendments to the City General Plan other than those required for the proposed Pacifica development. Because HP-5 would be remediated and filled as a separate project, it is assumed that development of HP-5 would be permitted as part of this alternative.

Similar to the Proposed Project, the Alternate L-Ditch Remediation Alternative would be included in an amendment to the LCP.

As with the proposed Pacifica development, the Alternate L-Ditch Remediation Alternative is consistent with the policies of the California Coastal Act. Although this alternative has a slightly larger building footprint than the Proposed Project due to the development of HP-5, that parcel would no longer be considered a wetland following remediation. The impacts are similar and therefore do not change the findings identified for the Proposed Project for conformance with the California Coastal Act.

The Alternate L-Ditch Remediation Alternative would not result in conflicts with the City's MSCP, other than those identified for the Proposed Project. No additional features are proposed as part of this alternative that would conflict with the policies of the MSCP. Although Parcel HP-5 would be developed as part of this alternative, remediation pursuant to the CAO would eliminate the wetlands; thus the 50-foot wetland buffer would not be required.

The Alternate L-Ditch Remediation Alternative would not involve additional and uses or increase the number of residential units from those proposed for the Pacifica project. Therefore, the land/water use compatibility for the Alternate L-Ditch Remediation Alternative would be similar to the Proposed Project. No additional impacts would occur and no additional mitigation is required. In addition, no additional conflicts with the adopted PMP water use designation resulting in an indirect or secondary environmental impact would occur.

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Alternate L-Ditch Remediation Alternative Site Plan

FIGURE
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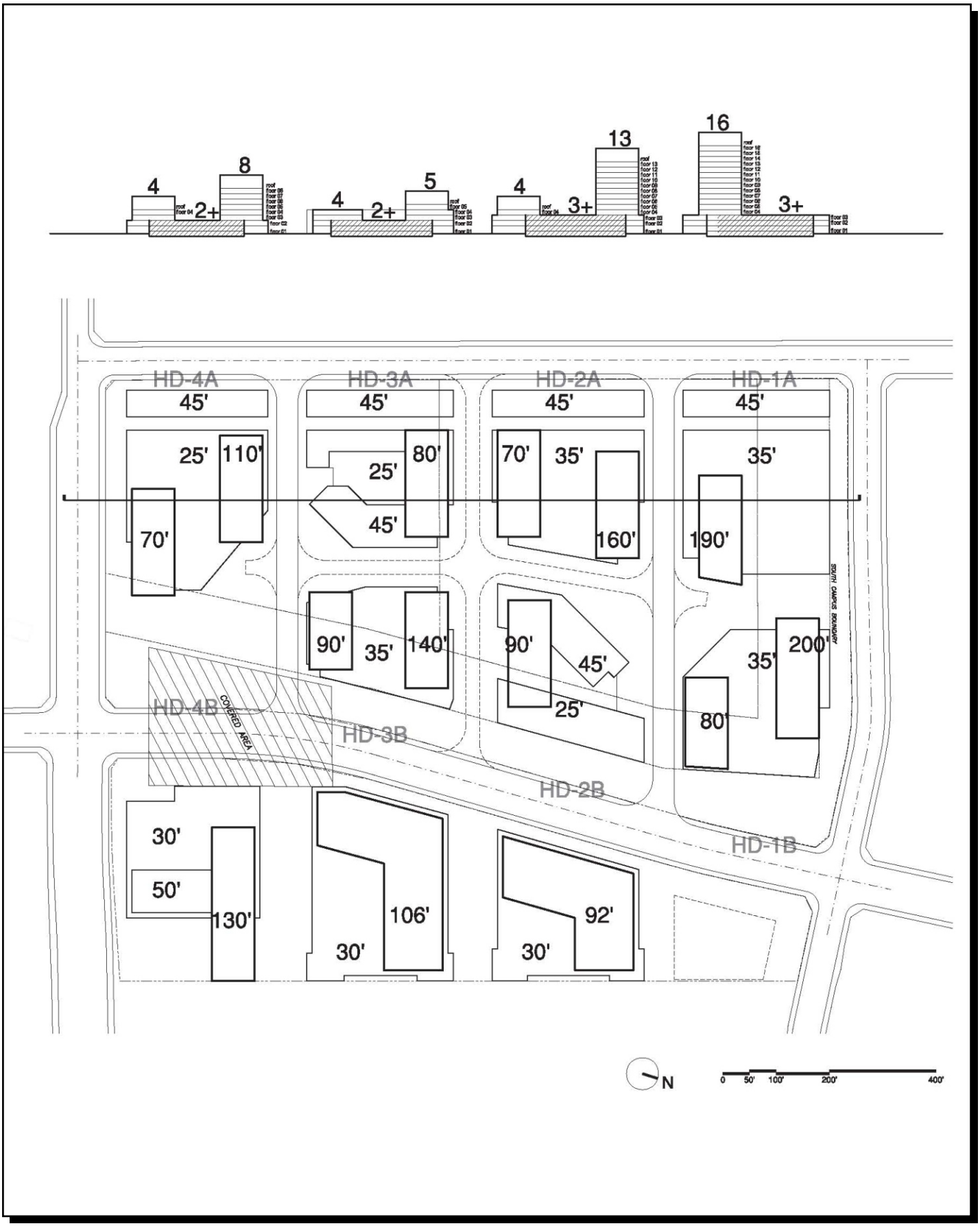

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SOURCE: Carrier Johnson

Revised Draft Environmental Impact Report (EIR) for the Chula Vista Bayfront Master Plan

Conceptual Plan for Pacifica Project, Remediated L-Ditch (Section 1)

FIGURE
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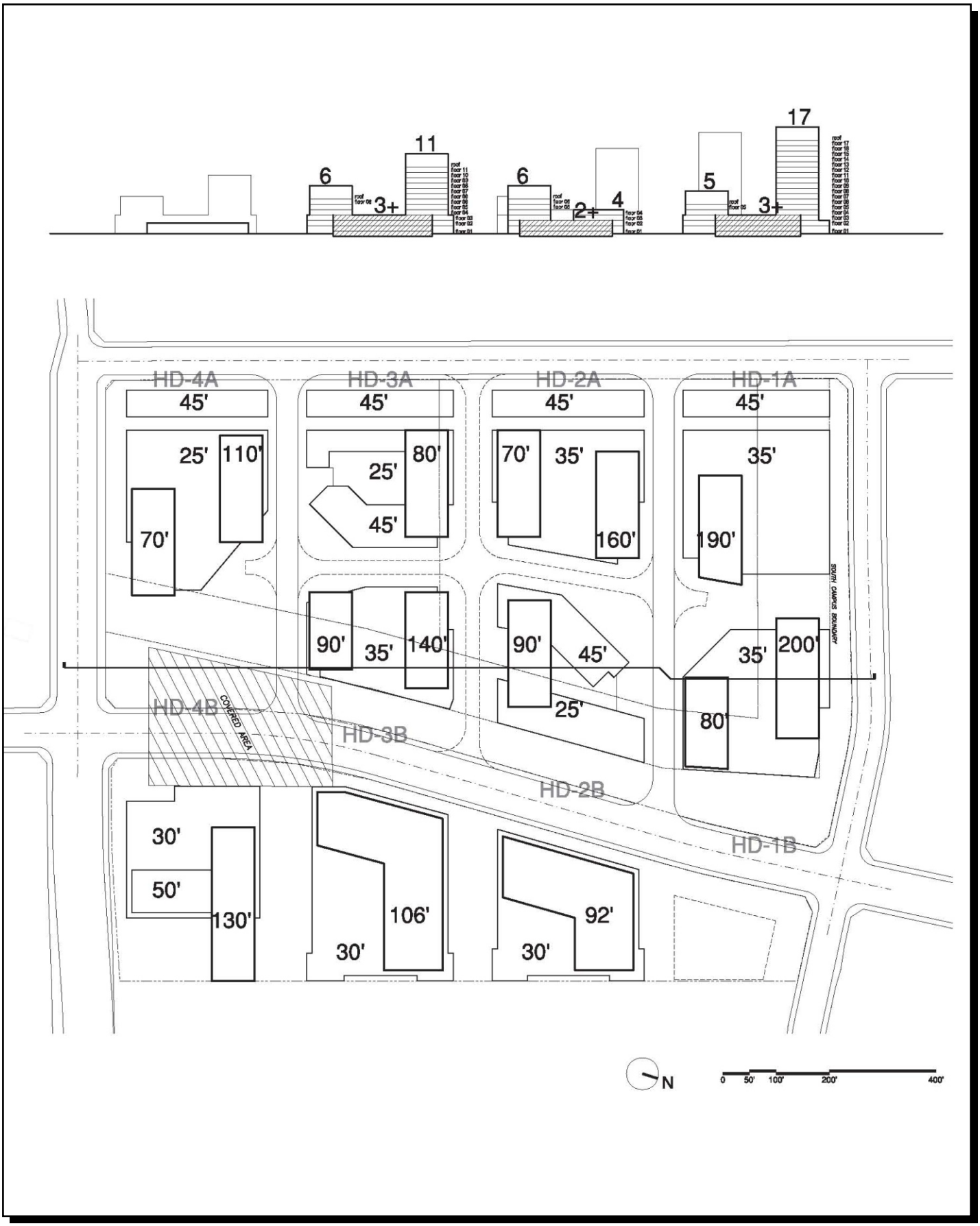

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SOURCE: Carrier Johnson

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Conceptual Plan for Pacifica Project, Remediated L-Ditch (Section 2)

FIGURE
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5.7.2 Traffic/Circulation and Parking

The traffic generated by the Alternate L-Ditch Remediation Alternative would be similar to the Proposed Project. The significant traffic impacts at project area intersections, roadway segments, and freeway segments associated with the Proposed Project would still exist under this alternative. Depending on additional access alternatives made available by remediation and fill of the L-Ditch pursuant to the CAO, the distribution of traffic and circulation on the project site may be affected.

The Alternate L-Ditch Remediation Alternative would not change the number of residential units or types of ancillary uses proposed. Therefore, no additional traffic would be generated by this alternative. Impacts would be similar. Based on the traffic analysis, the LOS for roadways affected by traffic generated by the Alternate L-Ditch Remediation Alternative would be the same as the Proposed Project.

The Alternate L-Ditch Remediation Alternative will not involve components that could affect air traffic patterns. Additional, this alternative does not propose any design features that would result in a traffic hazard.

The Alternate L-Ditch Remediation Alternative does not involve an increase in residential units or square footage of ancillary uses. Thus, anticipated parking demands for the Alternate L-Ditch Remediation Alternative could be fully accommodated within the parking allotments defined for the Proposed Project. Parking for parcels developed under this alternative will continue to be provided based on requirements for land use types as defined in the LCP Land Use Plan, City of Chula Vista Zoning Ordinance, and Port Master Plan. Therefore, impacts are similar to the Proposed Project.

Implementation of mitigation measures detailed in *Section 4.2, Traffic/Circulation,* would reduce traffic related impacts; however, implementation of these measures would not likely reduce all of these impacts to below a level of significance. As with the Proposed Project, therefore, impacts to traffic and circulation would remain significant and unmitigated.

5.7.3 Aesthetics/Visual Quality

The Alternate L-Ditch Remediation Alternative would result in an increase in the overall square footage of the buildings within Parcels H-13 and H-14 as well as development of HP-5. Seven blocks would be constructed as compared to six for the Proposed Project. The overall mass of each block would be reduced because the same number of units would be distributed over seven blocks rather than six. Eleven towers would still be constructed; however, the maximum building heights proposed under the Alternate L-Ditch Remediation Alternative would be 200 feet, rather than 220 feet under the Proposed Project.

Perceptually, there are very few differences between this alternative and the Proposed Project. The remediation of the L-Ditch would cause some level of disturbance to a visual resource; however, removal of this resource would not be considered significant as the resource is not intact. Changes to the visual quality of the site would be noticeable, but lessened by the addition of more vivid visual experiences. Structure visibility under this alternative is roughly equal to the Proposed Project. Changes in the overall visibility are increased slightly to the east and moderately to the north.

The increase in developable land area under this alternative would result in a reduction in building height, bulk, and development density. This increased land area will allow for increased distance between proposed towers, which would enhance the opportunity for east/west view corridors. East/west roadway segments will remain unchanged under this alternative; however, the existing view corridor afforded by the L-Ditch 50-foot buffer under the Proposed Project, parallel to I Street, would be eliminated under the Alternate L-Ditch Remediation Alternative. For views from the northwest and northeast of the Pacifica project site, illustrating the redistribution of residential development and reduction in height and bulk under this alternative, see *Figures 5.7-4* and *5.7-5*.

Reducing heights while maintaining floor area ratios would result in building placement closer to the edge of the parcels, limiting potential for step backs and other architectural features on the three parcels. While this affect may impact visual corridors surrounding the Pacifica development, it should only directly impact the design features of the three Pacifica parcels. Moreover, views of the project from the outside would be enhanced by the reduction in scale. This is particularly true of views from a greater distance, such as the Silver Strand, where the scale of the buildings plays a greater role than the space between them.

The Alternate L-Ditch Remediation Alternative would involve similar features and design elements as the Proposed Project and is not expected to have any additional significant impacts to aesthetics/visual quality, therefore, no additional mitigation is required.

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Pacifica Residential and Retail Project (Remediated L-Ditch), View to the Northwest

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Pacifica Residential and Retail Project (Remediated L-Ditch), View to the Northeast

FIGURE
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5.7.4 Hydrology/Water Quality

Under the Alternate L-Ditch Remediation Alternative, impacts to hydrology and water quality would be similar to those identified for the Proposed Project. As with the Proposed Project, new development under this alternative would be required to comply with existing water quality regulations intended to avoid or reduce impacts to water quality. Development in accordance with approved plans as permitted by the responsible agency would not be significant. Implementation of mitigation measures detailed in *Section 4.5, Hydrology/Water Quality,* of this report would reduce significant impacts to hydrology and water quality under this alternative to a level less than significant.

The development plan for the Alternate L-Ditch Remediation Alternative involves a different configuration of buildings than the Proposed Project, which could result in different drainage patterns at the site. Similar to the proposed Pacifica project, runoff generated from the site would be discharged to a conveyance system, preventing substantial erosion and siltation. No additional impacts to drainage would occur.

As with the Proposed Project, flows from the Alternate L-Ditch Remediation Alternative would be treated prior to discharge into the conveyance system. Protective measures, such as compliance with the General Construction Permit, City SUSMP, and Clean Water Act provisions, will be required as a condition of project approval as defined for the Proposed Project; therefore, no significant impacts would result. Mitigation measures identified to address the impacts to water quality for the Proposed Project would also adequately mitigate impacts associated with the Alternate L-Ditch Remediation Alternative.

The Alternate L-Ditch Remediation Alternative involves development on HP-5, which would increase the overall building footprint as compared to the Proposed Project. Although slightly more runoff could be generated from this alternative, the conveyance system would be designed to accommodate flows from the development. Long-term impacts associated with erosion and sediment flows would be similar to the Proposed Project.

The Proposed Project identified a significant water quality impact. Because the developed footprint of the Alternate L-Ditch Remediation Alternative would be the similar as the Proposed Project, water quality impacts would be the same. Because there would be no additional significant impacts to hydrology/water quality from this alternative, no additional mitigation is required.

5.7.5 Air Quality

Impacts to air quality would be similar to those identified for the Proposed Project. The overall intensity and location of uses would be the same as for the project. Impacts to air quality from

project development, including increased traffic, construction, and operational impacts associated with the existing industrial uses in and near the site would be partially mitigated, but remain significant. Construction and operation of the Alternate L-Ditch Remediation Alternative would involve similar components to the proposed Pacifica development. Although an additional building block would be constructed, the number of residential units and types of ancillary uses would be the same. No adverse impacts beyond those identified in the Proposed Project are expected.

Because the region is not in conformance with the standards for ozone and particulate matter, and since both the Proposed Project and the Alternate L-Ditch Remediation Alternative would contribute to NO_x, and $PM_{10,}$ and $PM_{2.5}$ in excess of the standard, both have a significant and unmitigable air quality impact.

5.7.6 Noise

Under this alternative, noise impacts associated with construction would be similar to those identified for the Proposed Project. Due to the increased developable footprint of the Pacifica development under this alternative, however, site preparation and infrastructure could affect the construction-related noise impact slightly. As with the Proposed Project, noise impacts associated with construction of this alternative would be regulated in accordance with existing noise ordinance thresholds. No additional traffic would be generated from this alternative; therefore, impacts resulting from traffic noise would be the same as for the Proposed Project.

The Alternate L-Ditch Remediation Alternative would not involve additional features that would result in noise levels beyond what would be generated for the Project. Therefore, permanent and temporary increases in ambient noise levels would be the same for the Proposed Project. As the land uses and development intensity proposed under the Alternate L-Ditch Remediation Alternative are the same as under the Proposed Project, noise levels should be similar to those identified for the Proposed Project. Any new uses would be reviewed to ensure they conform to adopted noise ordinances prior to approval.

Implementation of mitigation measures detailed in *Section 4.7, Noise,* of this report would reduce impacts to future residential use areas to below a level of significance.

5.7.7 Biological Resources (Terrestrial and Marine)

The Proposed Project determined a significant impact to biological resources. Impacts to biological resources under the Alternate L-Ditch Remediation Alternative would be similar to those identified under the Proposed Project.

Parcel HP-5, which currently includes wetland habitat, would be remediated and filled as part of a separate project required to be implemented by the CAO. Therefore, development of the parcel would not result in impacts to sensitive species.

The Proposed Project currently seeks to avoid sensitive biological resources through the establishment of ecological buffers along the perimeter of the Sweetwater and Otay Districts. These buffers are adjacent to other protected areas, including the J Street Marsh located across the street from the L-Ditch on Parcel HP-5.

Implementation of mitigation measures detailed in *Section 4.8, Terrestrial Biological Resources,* and *4.9, Marine Biological Resources,* are required to reduce impacts to sensitive vegetation communities, species, wetlands, and marine life identified for the Proposed Project to below a level of significance.

Reduced building heights under this alternative would lessen the potential for bird strikes; however, the location and scale of the development still represents a significant impact. As with the Proposed Project, mitigation measures discussed in *Section 4.8, Terrestrial Biological Resources,* would lessen the potential for bird strikes to below a level of significance.

5.7.8 Cultural Resources

As with the Proposed Project, the Alternate L-Ditch Remediation Alternative would not impact cultural resources. The entire project area has been disturbed extensively by historical and recent land use activities and is therefore not considered a culturally significant site. The Harbor District, where the L-Ditch is located, has been completely developed, and much of the district is built on fill, imported previously to expand the Bayfront. The area of potential impact is the same as for the Proposed Project, and impacts would remain less than significant.

Because there would be no additional significant impacts to cultural resources from the Alternate L-Ditch Remediation Alternative, no additional mitigation is required.

5.7.9 Paleontological Resources

The area of impact on Parcels H-13 and H-14 is generally the same for the Alternate L-Ditch Remediation Alternative as for the Proposed Project. Parcel HP-5 would be remediated and filled as part of a separate project required to be implemented pursuant to the CAO, so no impacts to paleontological resources would occur from development of HP-5 as part of this alternative.

5.7.10 Hazards and Hazardous Materials/Public Safety

The Alternate L-Ditch Remediation Alternative would generally have similar impacts related to disposal of existing contaminated soil and groundwater as the Proposed Project. Parcel HP-5

would be remediated and filled as part of a separate project required to be implemented by the CAO and would be subject to separate environmental review. Similar to the Proposed Project, implementation of mitigation measures, including cleanup and abatement programs and other remediation, would reduce impacts to a less than significant level prior to development of any given site.

As with the Proposed Project, implementation of the Cleanup and Abatement Order programs and other remediation, combined with implementation mitigation measures detailed in *Section 4.12, Hazards and Hazardous Materials/Public Safety*, which require the project to coordinate with responsible agencies to show that remediation has been completed to a standard acceptable for proposed uses, would ensure that impacts are avoided or reduced to below a level of significance prior to development of any given site.

5.7.11 Public Services

The Alternate L-Ditch Remediation Alternative proposes the same number of residential units and types of land uses as the Proposed Project. The fire service and police protection requirements would be similar to the Proposed Project. Similar to the Proposed Project, a fire station would be constructed in Phase I on Parcel H-17. Long-term construction of the new fire station could result in potentially significant impacts to water quality, hazards, and geology and soils unless mitigated as set forth in the Proposed Project.

Because the land uses and projected population are the same under this alternative as with the Proposed Project, impacts to fire and police services, parks and recreation, schools, and library services would be the same as with the Proposed Project. Mitigation measures identified to address the impacts to public services would be similar to the Proposed Project as detailed in *Section 4.13, Public Services*. Impacts to public services would be mitigated to below a level of significance for either the Proposed Project or the Alternate L-Ditch Remediation Alternative.

5.7.12 Public Utilities

Because the land uses are the same and the projected population is the same, impacts to public utilities would be the same as those resulting from implementation of Proposed Project. Ultimate build-out under the Alternate L-Ditch Remediation Alternative would require upgrades to sewer and water supply facilities to meet increased demand, similar to the Proposed Project.

As described above, no additional land uses or residential units would be associated with the Alternate L-Ditch Remediation Alternative, so no additional waste would be generated for disposal at a landfill. The Alternate L-Ditch Remediation Alternative would comply with the same federal, state, and local regulations related to solid waste as the Proposed Project. No additional impacts would occur and impacts would remain less than significant.

Except for long-term water supply, no other impacts to Public Utilities are determined to be significant. As with the Proposed Project, development of this alternative has the potential to result in significant impacts to water supply because of the absence of long-term supply contracts for water. The required mitigation measures and the guidelines for the provision of public services and utilities in Chula Vista identified for the Proposed Project would also be applicable to this alternative; however, because of the absence of long-term supply contracts for water, the impact remains significant and unmitigable.

5.7.13 Seismic/Geologic Hazards

Impacts would be the same or similar to those resulting from the Proposed Project. No active faults have been mapped or observed within the Alternate L-Ditch Remediation Alternative site, nor is the site located within a State of California Earthquake Fault Zone. As with the Proposed Project, there is the potential for lurching or cracking of ground surface as a result of nearby seismic activity. Impacts would be mitigated through implementation of site-specific engineering/geotechnical mitigation measures as identified for the Proposed Project.

Implementation of mitigation measures detailed in *Section 4.15, Seismic/Geologic Hazards,* would be expected to reduce any impacts to below a level of significance.

5.7.14 Energy

The Alternate L-Ditch Remediation Alternative proposes the same types of land uses and number of residential units as the Proposed Project, therefore the energy requirements would be similar to the Proposed Project. The general area of potential impact and intensity of development under the Alternate L-Ditch Remediation Alternative is the same as for the Proposed Project. Implementation of mitigation measures detailed in *Section 4.16, Energy,* would reduce impacts to below a level of significance.

5.7.15 Population and Housing

The Alternate L-Ditch Remediation Alternative does not change the location or the number of homes to be constructed or the projected population of the area compared to the Proposed Project. The Alternate L-Ditch Remediation Alternative would provide a range of housing opportunities to meet the growing demand as projected for the City, similar to the Proposed Project. There are no residences within the project boundary; therefore, the Alternate L-Ditch Remediation Alternative would not displace any existing housing or residents, similar to the Proposed Project.

Impacts would remain less than significant, as identified in *Section 4.17, Population and Housing,* for the Proposed Project.

5.8 Environmentally Superior Alternative

As required under Section 15126.6 (e)(2) of the CEQA Guidelines, this report must identify the environmentally superior alternative. Pursuant to the CEQA Guidelines, if the No Project Alternative is determined to be the most environmentally superior project, then another alternative among the alternatives evaluated must be identified as the environmentally superior project.

The Reduced Density Alternative would be considered the environmentally superior project because it would reduce impacts associated with land use, traffic, aesthetics/visual quality, water quality, noise, air quality, hazards/hazardous materials, utilities, and seismic/geology, while implementing the project objectives which are enumerated in *Chapter 2, Introduction*, of this EIR.