5.0

PROJECT ALTERNATIVES

5.1 Introduction

This chapter discusses development alternatives to the proposed Project. Various alternatives were considered during the preparation of this draft EIR, but several were eliminated from further discussion because they did not satisfy the requirements for an alternative as defined by CEQA. Section 15126.6 of the CEQA Guidelines states that an "EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, that would feasibly attain most of the basic objectives of the project, which would avoid or substantially lessen any of the significant effects of the project." Accordingly, two alternatives that meet most of the proposed project objectives and that would avoid or substantially lessen a significant impact are identified in Section 5.2.1. These alternatives are summarized in Table 5-1. In addition, as required by CEQA, the No Project Alternative is included in the analysis. Section 5.4 identifies the environmentally superior alternative. All three alternatives have been qualitatively analyzed in this draft EIR at a level that provides sufficient information about the environmental effects of each alternative for comparative purposes and to allow for informed decision-making. The alternatives are as follows:

- Alternative 1—Reduced Development: No Avalon Development District (Areas A and B)
- Alternative 2—Reduced Construction and Demolition: LADWP Marine Tank Farm to Remain
- Alternative 3—No Project Alternative

5.2 Project Alternatives

5.2.1 CEQA Requirements for Alternatives

CEQA's evaluation criteria for alternatives are described fully in Chapter 1, Section 1.6.8. Briefly, the CEQA Guidelines, Section 15126.6, require that an EIR present a

range of reasonable alternatives to the proposed project, or to the location of the project, that could feasibly attain a majority of the basic project objectives, but would avoid or substantially lessen one or more significant environmental impacts of the project. The range of alternatives required in an EIR is governed by a "rule of reason" that requires an EIR to set forth only those alternatives necessary to permit a reasoned choice. An EIR need not consider every conceivable alternative to a project. Rather, the alternatives must be limited to ones that meet the project objectives, are ostensibly feasible, and would avoid or substantially lessen at least one of the significant environmental effects of the project (CEQA Guidelines, Section 15126.6[f]). The EIR must also identify the environmentally superior alternative other than the No Project Alternative. Alternatives may be eliminated from detailed consideration in the EIR if they fail to meet most of the Project objectives, are infeasible, or do not avoid or substantially lessen any significant environmental effects (CEQA Guidelines, Section 15126.6[c]).

5.2.2 CEQA Project Objectives and Project Alternative Section Criteria

The proposed Project's objectives were developed based on the community planning process described in Chapter 2, "Project Description." Objectives are numbered 1 through 6 for ease of reference within this chapter.

1. create a project that will serve as a regional draw and attract visitors to the Wilmington Waterfront;
2. design and construct a waterfront park, promenade, and dock to enhance the connection of the Wilmington community with the waterfront while integrating design elements related to the Port's and Wilmington's past, present, and future;
3. construct an independent project that integrates design elements consistent with other area community development plans to create a unified Los Angeles waterfront through the integration of publicly oriented improvements;
4. enhance the livability and economic viability of the Los Angeles Harbor area, Wilmington community, and surrounding region by promoting sustainable economic development and technologies within the existing commercial Avalon Development District; and
5. integrate environmental measures into design, construction, and operation to create an environmentally responsible project.

5.2.3 Alternatives Considered

This document presents a reasonable range of alternatives pursuant to CEQA. LAHD defines a reasonable range of alternatives in light of its legal mandates under the Port of Los Angeles Tidelands Trust (Los Angeles City Charter, Article VI, Sec. 601), the California Coastal Act (PRC Div 20 S30700 et seq.), and LAHD's leasing policy (LAHD 2006). The Port is one of only five locations in the state identified in the

California Coastal Act for the purposes of international maritime commerce (PRC Div 20 S30700 and S30701). These mandates identify the Port and its facilities as a primary economic/coastal resource of the state and an essential element of the national maritime industry for promotion of commerce, navigation, fisheries, environmental preservation, and public recreation (California State Lands Commission 2001). In developing an appropriate range of alternatives, the starting point is the proposed Project's objectives.

Three alternatives—including the No Project Alternative and two alternative development scenarios that meet most of the proposed Project's objectives—are analyzed in this draft EIR. Both alternative development scenarios meet a majority of the proposed Project's objectives and would reduce at least one potentially significant impact of the proposed Project. This chapter presents a description of these three alternatives and provides a summary of other alternatives considered but eliminated from further discussion. The analysis of alternatives need not be as in-depth as the analysis for the proposed Project, but should be at a level that allows the decision-maker to make an informed determination regarding the differences in impacts between the proposed Project and each of its alternatives. Table 5-1 provides a summary comparison of each of the alternatives in relation to the proposed Project.

Table 5-1. Summary of Proposed Project and Alternatives at Full Buildout (2020)

Alternative	*Total Project Acres*	*Acres Subject to Construction Activity**	*Proposed Retail/Commercial and Restaurant (square feet)*	*Proposed Industrial (square feet)*	*Total Fill in Water (square feet)*	*New Over-Water Viewing Piers (square feet)*
Proposed Project	94	90	70,000	150,000	2,200	43,220
Alternative 1 Reduced Development: No Avalon Development District	63	55	12,000	0	2,200	43,220
Alternative 2 Reduced Construction and Demolition: LADWP Marine Tank Farm to Remain	94	82	70,000	150,000	2,200	43,220
Alternative 3 No Project	94	0	0	0	0	0

*Construction activity includes, but is not limited to, grading, grubbing, trenching, demolition, and new construction and improvements. Avalon Triangle Park is a separate development project and is only included in the proposed Project boundary due to the Port Plan and PMP boundary adjustment and land use redesignation.

5.2.3.1 Alternative 1—Reduced Development: No Avalon Development District

As compared to the proposed Project, Alternative 1 would reduce the development footprint by not improving the Avalon Development District (Areas A and B) generally north of Harry Bridges Boulevard and in a portion north of A Street between Marine Avenue and Avalon Boulevard. Instead, this alternative would only develop the Avalon Waterfront District, CCT, and provide program-level planning for the Waterfront Red Car Line (discussed in greater detail in Section 2.6.3).

The Avalon Waterfront District is generally bounded by A Street and a portion of Harry Bridges Boulevard to the north, Broad Avenue to the east, Fries Avenue to the west, and the waterfront to the south. The Waterfront Red Car Line/CCT would begin at Swinford Street, run along Front Street, connect with John S. Gibson Boulevard, and then continue onto Harry Bridges Boulevard until terminating at Avalon Boulevard. This alternative would reduce the amount of construction materials, construction vehicle emissions, earthwork, grading, and construction noise; shorten construction time; and reduce operational impacts in comparison to the proposed Project.

Alternative 1 would not include streetscape and pedestrian enhancements along portions of Harry Bridges Boulevard, C Street, portions of Avalon Boulevard, Lagoon Avenue, Island Avenue, portions of Fries Avenue, Marine Avenue, and portions of Broad Avenue. Nor would it develop the infrastructure to support approximately 150,000 square feet of development for light industrial uses (for green technology businesses) or the 58,000 square feet of retail/commercial uses. In addition, Alternative 1 would not include implementation of the Waterfront Red Car Museum, rehabilitation of the 14,500-square-foot Bekins Property, or development and landscaping of the 1-acre Railroad Green. Extension of the Waterfront Red Car Line and California Coastal Trail to the San Pedro Community, beginning at Swinford Street and ending at Avalon Boulevard, however, would remain as a development component of Alternative 1 as planned under the proposed Project.

The Avalon Development District would remain underdeveloped in its existing condition. This area would have the potential to undergo redevelopment in the future, but it would not be in combination or coordination with the Wilmington Waterfront Development Program. Under this alternative, development of the infrastructure within the Avalon Development District would not be assured and the land would potentially remain vacant indefinitely.

As with the proposed Project, however, the boundary extensions would include the entire Avalon Waterfront District and Avalon Triangle Park, but would not include Avalon Development District Area B. No physical changes would occur at the Avalon Triangle Park site.

Alternative 1 would develop the Avalon Waterfront District in the same manner as the proposed Project, as discussed in greater detail in Section 2.6.2. Briefly, elements that would occur include:

- **Waterfront Promenade**—adding pedestrian-oriented features and improvements such as a waterfront promenade with viewing piers and 12,000 square feet of restaurant/retail development, a 200-foot Observation Tower with a pedestrian ramp, removing the Los Angeles Department of Water and Power (LADWP) Marine Tank site and associated pipe conveyance infrastructure, and remediating the site; this area is generally defined by the current Water Street alignment and the National Polytechnic University (College of Oceaneering) to the north, Fries Avenue to the west, and the current Avalon Boulevard alignment to the east. The Port harbor and views of the water at Slip 5 are along its southern border.
- **Land Bridge and Elevated Park**—a 10-acre Land Bridge with an elevated park and a pedestrian "water" bridge enhanced by an integrated water feature that will provide the surrounding community with open space and improved pedestrian access to the waterfront; this area is generally bounded by A Street to the north, Avalon Boulevard to the east, the Harbor Generating Station and its associated peaker unit to the west, with the Harbor Rail Line and Slip No. 5 to the south.
- **Avalon Triangle Park**—located south of Harry Bridges Boulevard, between Broad Avenue and Avalon Boulevard. Avalon Triangle Park is not part of the proposed Project, but it would be included within the area that would be encompassed by the proposed Port Plan and PMP boundary expansion.
- **Avalon Boulevard, Broad Avenue, and Water Street Realignment**—downgrade and vacate Avalon Boulevard south of A Street, realign Broad Avenue to the waterfront, and realign Water Street to run adjacent to the Pacific Harbor Rail Line, which is proposed to travel under the proposed Land Bridge to improve pedestrian circulation and provide space for the waterfront promenade.

The elements or actions associated with the Avalon Waterfront District primarily include the development of a waterfront promenade, including visitor-serving amenities such as commercial development and an observation tower; the development of a Land Bridge with open space and an elevated park, an Entry Plaza and a pedestrian water bridge connecting Harry Bridges Boulevard to the waterfront promenade. The existing LADWP Marine Tank site in the area would be demolished, and surface parking and traffic improvements are proposed.

5.2.3.1.1 Alternative 1 Objectives Analysis

Alternative 1 would meet nearly all of the proposed project objectives except for Objective #4, which aims to enhance the livability and the economic viability of the Los Angeles Harbor area, Wilmington community, and surrounding region by promoting sustainable economic development and technologies within the existing commercial Avalon Development District. Because Alternative 1 would not develop the Avalon Development District, sustainable economic development and technologies would not be promoted in this area.

5.2.3.2 Alternative 2—Reduced Construction and Demolition: LADWP Marine Tank Farm to Remain

Alternative 2 is an alternative development scenario that would reduce the amount of construction and demolition activities by leaving the LADWP Marine Tank Farm in place and reducing the size of the land bridge by only building the Phase 1 portion. Alternative 2 would also develop the Avalon Development District (Areas A and B), discussed in greater detail in Section 2.6.1. This alternative would reduce the amount of construction materials, resources, construction vehicle emissions and noise, earthwork and grading, and demolition work when compared with the proposed Project. However, because the LADWP Marine Tank Farm would remain in place, no site remediation would occur and the land bridge would not connect to the Avalon Development District. Access to the waterfront would still be provided by the proposed pedestrian "water" bridge, but the land bridge would terminate at the LADWP Marine Tank Farm site boundary. This would result in an approximately 4-acre Phase I land bridge park, roughly 6 fewer acres than the proposed Project.

Other than not including the Phase II portion of the land bridge and not removing the LADWP Marine Tank Farm, Alternative 2 would propose the same elements as the proposed Project, including realigning Water Street. As with the proposed Project, development and infrastructure improvements would occur at the Avalon Development District including the CCT, program-level planning would occur for the Waterfront Red Car Line, and the Port Plan and PMP boundary extensions would include all of the area identified with the proposed project boundary.

5.2.3.2.1 Alternative 2 Objectives Analysis

Alternative 2 would meet nearly all the proposed project objectives except for Object #2, which aims to design and construct a waterfront park and promenade to enhance the connection of the Wilmington community with the waterfront. While the pedestrian "water" bridge would still be constructed allowing safe pedestrian access to the waterfront from the intersection of Avalon and Harry Bridges Boulevards, the LADWP Marine Tank Farm storage tanks would remain in place and would continue to disrupt views and access to the waterfront. The result would be a continuation of a physical and visual disconnect between the Wilmington community and the waterfront.

5.2.3.3 Alternative 3—No Project

Alternative 3 considers what would reasonably be expected to occur on the site if no future discretionary actions occurred. LAHD would not issue any discretionary permits or discretionary approvals, and would take no further action to construct or permit the construction of any portion of the proposed Project. This alternative would not allow implementation of the proposed Project or other physical improvements associated with the proposed Project. Under this alternative, no construction impacts associated with a discretionary permit would occur.

The following existing conditions, onsite tenants, resident companies, and public facilities along with associated foreseeable actions, would occur, or continue to operate, if the No Project Alternative was selected:

- LADWP would continue to maintain the oil storage tanks (3) and accessory structures, and may renew the lease prior to its expiration set for 2012; remediation of the LADWP site would not occur.
- Light industrial and heavy commercial uses, such as the Marine Technical Services Dockside Machine & Ship Repair, would continue to exist and operate north of A Street and north of Harry Bridges Boulevard, along the Avalon Development District; though no area-wide redevelopment plan would be implemented and many buildings would remain in a blighted or underused condition and many sites would remain vacant.
- The historic Bekins Property buildings would not undergo adaptive reuse or reconditioning, but instead would remain on site in their existing condition.
- Banning's Landing Community Center would continue to operate and its associated parking lot would remain in place.
- The waterfront and existing bulkhead would remain in their existing, deteriorated condition.
- Relocation of Catalina Freight and demolition of the onsite building located at the waterfront could still occur as the tenant is being relocated independently of the proposed Project.
- The National Polytechnic University (f. College of Oceaneering) would continue to operate as with the proposed Project, but no improvements would be made to the surface parking lot and landscaping.
- Avalon Boulevard would continue through to the waterfront; Broad Avenue would terminate at Avalon Boulevard; Water Street would not be realigned.
- Movement of goods would continue by rail transport and through heavy truck operations using the exiting transportation corridors and street network.
- The Port of Los Angeles Plan, Wilmington–Harbor City Community Plan, and the Port Master Plan would remain unchanged.
- Development of Avalon Triangle Park would still proceed independently.

5.2.3.3.1 Alternative 3 Objectives Analysis

This alternative would not allow any discretionary approvals on the proposed project site. Because the site would remain in its existing condition, no proposed project objectives would be met.

5.3 Impact Analysis of Project Alternatives

For each of the 14 environmental resources analyzed in this Draft EIR, Chapter 3 identifies significant impacts associated with the proposed Project. The two design alternatives and the No Project Alternative described in 5.2.3 are qualitatively

evaluated in Sections 5.3.2 and 5.3.3 below. Section 5.4 identifies the alternative which qualifies as the overall Environmentally Superior Alternative.

As with the proposed Project, three of the environmental resources evaluated (Air Quality, Geology, and Noise) have unavoidable significant impacts for the two design alternatives. Five of the environmental resources evaluated (Biological Resources, Cultural Resources, Groundwater and Soils, Transportation, and Utilities) have significant impacts that could be mitigated to a less-than-significant level for the proposed Project and one or both of the design alternatives. The remaining resources—Aesthetics; Land Use and Planning; Hazards and Hazardous Materials; Population and Housing; Public Services; and Water Quality, Sediments, and Oceanography—have no significant impacts associated with any alternatives**.** The discussion below describes the significant impacts for each resource associated with each alternative and compares the alternatives' impacts with the proposed Project's impacts.

5.3.1 Alternative Impact Analysis Summary

Table 5-2 presents a summary of the results of the analysis for the resource areas that involve significant impacts from one or more of the alternatives, and identifies the alternatives that would result in significant unavoidable impacts, as discussed in Section 5.3.2 below. Resources with significant impacts that can be mitigated to less than significant are discussed in 5.3.3.

Table 5-2. Summary of CEQA Significance Analysis by Alternative

*Environmental Resource Area**	*Proposed Project*	*Alternatives 1*	*Alternative 2*	*No Project Alternative 3*
Air Quality	S	S	S	L
Biological Resources	M	M	M	N
Geology	S	S	S	S
Noise	S	S	S	N
Cultural Resources	M	S	M	S
Groundwater and Soils	M	M	S	S
Transportation	M	L	M	L
Utilities	M	M	M	L

Notes:

*Only environmental resources with unavoidable significant impacts or significant but mitigable impacts are included in the table and the analysis used to rank alternatives; the analysis includes project-level impacts, not cumulative effects.

S = Significant Unavoidable
M = Significant but Mitigable
L = Less than Significant
N = No Impact

The proposed Project and both Alternative 1 and Alternative 2 have unavoidable significant impacts in the areas of Air Quality, Geology, and Noise. Alternative 2 would also have a significant and unavoidable impact on groundwater and soils, while it would be mitigable under the proposed Project and Alternative 1. Alternative 1 would have a significant and unavoidable impact on cultural resources. The proposed Project, Alternative 1, and Alternative 2 would have the same significant but mitigable impacts on biological resources and utilities. Alternative 1 would have less-than-significant impacts on transportation, whereas under the proposed Project and Alternative 2 impacts would be significant but mitigable. The No Project Alternative, which would continue the current conditions on site indefinitely, would have significant impacts on Geology, Cultural Resources, and Groundwater and Soils.

During construction, the proposed Project, Alternative 1, and Alternative 2 would have unavoidable significant impacts in the areas of Noise and Air Quality. No construction-related impacts would occur under the No Project Alternative as no construction would occur under this alternative.

Table 5-3 ranks the alternatives on the basis of a comparison of their environmental impacts with those of the proposed Project. The ranking is based on the significance determinations for each resource area, as discussed in Chapter 3 and the qualitative analysis below, and reflects differences in the levels of impact among alternatives. This ranking also takes into consideration the relative number of significant impacts that are mitigated to a level below significance, the number of impacts that remain significant after mitigation, and the relative intensity of impacts. As shown in Table 5-2 above and Table 5-3, the No Project Alternative is the environmentally superior alternative because it would impact fewer resources; however, because CEQA requires a selection of a design alternative in the event the No Project Alternative is the environmentally superior, the Reduced Development: No Avalon Development District Alternative is the environmentally superior alternative because it would have reduced impacts.

Table 5-3. Comparison of Alternatives to the Proposed Project (with Mitigation; CEQA Impacts)

*Environmental Resource Area**	*Alternative 1*	*Alternative 2*	*No Project Alternative 3*
Air Quality	-1	-1	-2
Biological Resources	0	0	-1
Geology	-1	1	1
Noise	-1	-1	-2
Cultural Resources	1	-1	1
Groundwater and Soils	0	1	1
Transportation	-1	0	-1
Utilities	-1	-1	-2
Total	**-4**	**-2**	**-5**

*Environmental Resource Area**	*Alternative 1*	*Alternative 2*	*No Project Alternative 3*

Notes:

*Only environmental resources with unavoidable significant impacts or significant but mitigable impacts are included in the table and the analysis used to rank alternatives; the analysis includes project-level impacts, not cumulative effects.

-2 = Impact considered to be substantially less when compared with the proposed Project.
-1 = Impact considered to be somewhat less when compared with the proposed Project.
0 = Impact considered to be equal to the proposed Project.
1 = Impact considered to be somewhat greater when compared with the proposed Project.
2 = Impact considered to be substantially greater when compared with the proposed Project.

Where significant unavoidable impacts would occur across different alternatives but there are impact intensity differences between those alternatives, numeric differences are used to differentiate alternatives (i.e., in some cases, there are differences at the individual impact level, such as differences in number of impacts or relative intensity).

5.3.2 Resources with Significant Unavoidable Impacts

Tables 5-2 and 5-3 identify the alternatives that would result in both unavoidable and significant impacts and those impacts on resources that would be significant without mitigation but would be reduced to less than significant with mitigation, as analyzed in Chapter 3 for the proposed Project and qualitatively analyzed for each alternative in the section below.

5.3.2.1 Air Quality

5.3.2.1.1 Proposed Project

Construction of the proposed Project would result in the generation of emissions of CO, VOCs, NO_X, SO_X, PM_{10}, and $PM_{2.5}$. Emissions would originate from mobile and stationary construction equipment exhaust, tugboat and small boat exhaust, delivery truck exhaust, employee vehicle exhaust, and dust from clearing the land and exposed soil eroded by wind. Construction-related emissions would vary substantially depending on the level of activity, length of the construction period, specific construction operations, types of equipment, number of personnel, wind and precipitation conditions, and soil moisture content.

Overall, a 99-month active construction period is anticipated, starting in the third quarter of 2009 and concluding around the fourth quarter of 2017. The total amount of construction, the duration of construction, and the intensity of construction activity could have a substantial effect on the amount and concentration of construction emissions and the resulting impacts occurring at any one time.

Impacts from construction of the proposed project would be significant. Implementation of MM AQ-1 through MM AQ-9 would reduce nearly all significant impacts related to construction emissions to less than significant with the exception of NO_X. Moreover, NO_X, PM_{10}, and $PM_{2.5}$ still exceed the SCAQMD significance thresholds. Construction emission impacts related to NO_X emissions would remain significant and unavoidable and NO_X, PM_{10}, and $PM_{2.5}$ still exceed the SCAQMD significance thresholds.

In addition, because there would be an overlap between Phase I operation and construction in 2011, the combined total of construction and operational impacts is expected to be significant for NO_X and PM_{10}, while for 2015, the combined total is expected to be significant for NO_X. Implementing **MM AQ-1** through **MM AQ-9** would reduce impacts from NO_X and PM_{10}, but not to a level below significance.

Finally, the proposed Project is located in an industrial area and is adjacent to several sources of toxic air contaminant emissions—most notably, the Harbor Generating Station to the west, the Ports of Los Angeles and Long Beach to the south and southeast, and Port-related diesel trucks traveling along Harry Bridges Boulevard to the north. Although proposed Project operations are not expected to produce significant health risk impacts on the surrounding community, people visiting the proposed project site could be exposed to elevated levels of TACs from these adjacent emission sources. Of particular concern are sensitive receptors, including those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing serious health problems affected by air quality).

Because the proposed Project would attract sensitive individuals to a location that most likely has a higher risk than their place of residence, a health risk impact would result. The magnitude of the impact would depend on a variety of factors, including the frequency and duration of a person's visit, the person's exertion level (i.e., breathing rate) during the visit, the amount of Port and industrial activity occurring during the visit, and the prevailing meteorological conditions (wind speed, wind direction, and atmospheric stability level). While most visitors would probably receive a relatively slight health risk impact, the possibility exists that a frequent visitor could accumulate a significant long-term cancer or non-cancer impact. The possibility also exists that any visitor could receive a significant short-term (acute) impact if the visit takes place during a high level of adjacent industrial activity coupled with worst-case meteorological conditions. Therefore, the proposed Project would expose visitors to significant health risk impacts associated with air pollutants from other sources. Impacts would be significant and unavoidable.

5.3.2.1.2 Reduced Development: No Avalon Development District Alternative (1)

Alternative 1 would substantially reduce the amount of construction that would take place within the Avalon Development District. Impacts from construction emissions would be substantially reduced as well. However, as discussed above, impacts from construction and operation would overlap largely at the Avalon Waterfront District.

While construction emissions would be reduced, it would likely not be enough to reduce impacts from construction emissions and the combination of construction and operation emissions during 2011 through 2015. Impacts would be reduced as compared to the proposed Project, but would still remain significant even after the implementation of **MM AQ-1** through **MM AQ-9**.

Moreover, because the Avalon Waterfront District would still be developed under this scenario, impacts visitors to the proposed project site would still exist. These visitors could be exposed to elevated levels of TACs from these adjacent emission sources. Of particular concern are sensitive receptors, including those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing serious health problems affected by air quality). As compared to the proposed Project, Alternative 1 would have a reduced impact on air quality, but the impact would still remain significant and unavoidable.

5.3.2.1.3 Reduced Construction and Demolition: LADWP Marine Tank Farm to Remain Alternative (2)

Alternative 2 would reduce the amount of construction that would take place within the Avalon Waterfront District, specifically at the Marine Tank Farm site. Impacts from construction emissions would be reduced. However, baseline air quality impacts at the Marine Tank Farm location would likely be greater than the operational air quality impacts from the addition of the remaining 6-acre land bridge. Furthermore, while construction emissions would be reduced, it would likely not be enough to reduce impacts from construction emissions and the combination of construction and operation emissions during 2011 through 2015 to a level less than significant. As with Alternative 1, impacts would be reduced as compared to the proposed Project, but would still remain significant even after the implementation of **MM AQ-1** through **MM AQ-9**.

Even considering that the Land Bridge would be reduced in size from 10-acres to 4-acres, impacts on people visiting the proposed project site would still exist. These visitors could be exposed to elevated levels of TACs from these adjacent emission sources. Of particular concern are sensitive receptors, including those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing serious health problems affected by air quality). As compared to the proposed Project, Alternative 2 would have a reduced impact on air quality, but the impact would still remain significant and unavoidable.

5.3.2.1.4 No Project Alternative (3)

Under Alternative 3, no additional discretionary approvals would occur. Development on the site would consist of the existing operations and improvements which would be allowed by the underlying zoning by right. The industrial businesses located in the Avalon Development District Area B would continue to operate. The Marine Tank Farm located in the north portion of the Avalon Waterfront District

would continue to operate. Because large scale construction would not occur, air quality impacts from construction would be reduced to a less than significant impact. Operational air quality impacts would be reduced initially, but over time would be comparable to the proposed Project as vehicle standards improve and emissions are further restricted.

In contrast to the proposed Project, the No Project Alternative would not construct a visitor-oriented development. Consequently, visiting purposes would be limited to meetings at Banning's Landing, business purposes at the existing Industrial buildings, and occasional visitors to the water's edge. Overall, the number of visitors would be substantially reduced. Therefore, under Alternative 3, far fewer sensitive receptors would be exposed to elevated levels of TACs from these adjacent emission sources. Impacts would be less than significant. As compared to the proposed Project, Alternative 3 would have a reduced impact on air quality.

5.3.2.2 Geology

5.3.2.2.1 Proposed Project

Seismic activity along the Palos Verdes Fault zone, or other regional faults, would potentially produce fault rupture, seismic ground shaking, liquefaction, or other seismically induced ground failure. Seismic hazards are common to the Los Angeles region and would not be increased by the proposed Project. However, because the proposed project area is potentially underlain by strands of the active Palos Verdes Fault and liquefaction-prone soil, there is a substantial risk of seismic impacts such as fault rupture, seismic ground shaking, liquefaction, or other seismically induced ground failure. Because construction would occur over an extended period, increased exposure of people and property during construction to seismic hazards from a major or great earthquake cannot be precluded, even with incorporation of modern construction engineering and safety standards. Similarly, increased exposure of people and property during operations cannot be precluded, even with incorporation of such safety standards. Therefore, impacts due to seismically induced ground failure would be significant and unavoidable.

Implementation of **MM GEO-1** would require a site-specific geotechnical investigation to be completed by a California-licensed geotechnical engineer and/or engineering geologist prior to any construction activities, the results of which will be incorporated into the structural design of proposed project components. However, even with mitigation, impacts from seismic hazards would remain significant.

5.3.2.2.2 Reduced Development: No Avalon Development District Alternative (1)

Alternative 1 would reduce the development footprint in comparison to the proposed Project by not including the industrial area north of Harry Bridges Boulevard (Area A) and north of A Street (Area B). This would eliminate the approximately 150,000

square feet of industrial and 58,000 square feet of retail commercial use for which the proposed Project would construct necessary infrastructure and pedestrian amenities. This alternative would result in fewer people coming to the proposed project site. However, the land bridge park, waterfront promenade, and Observation Tower would still bring public crowds for public gatherings a few times a year as well as relatively smaller numbers on a daily and weekend basis for recreation.

As with the proposed Project, because the proposed project area is potentially underlain by strands of the active Palos Verdes Fault and liquefaction-prone soil, there is a substantial risk of seismic impacts such as fault rupture, seismic ground shaking, liquefaction, or other seismically induced ground failure. Construction would occur over an extended period, and increased exposure of people and property during construction to seismic hazards from a major or great earthquake cannot be precluded, even with incorporation of modern construction engineering and safety standards. Similarly, increased exposure of people and property during operations cannot be precluded, even with incorporation of such standards. When compared with the proposed Project, Alternative 1 would bring fewer people to the proposed project site and no buildings would be constructed in the Avalon Development District, but impacts due to seismically induced ground failure at the Avalon Waterfront District would remain significant and unavoidable.

Impacts from seismically induced events would be reduced by this development alternative when compared with the proposed Project, but not to a less-than-significant level.

5.3.2.2.3 Reduced Construction and Demolition: LADWP Marine Tank Farm to Remain Alternative (2)

Alternative 2 would develop the Avalon Development District, Waterfront Red Car Line/CCT, and much of the Avalon Waterfront District in the same manner as the proposed Project; however, this alternative would only complete the Phase I portion of the Avalon Waterfront District's interim land bridge. The Phase II portion, which would be developed on the LADWP Marine Tank Farm site by the proposed Project, would not be developed under this alternative. The site would remain in operation and under the ownership of LADWP.

As with the proposed Project, because the area is potentially underlain by strands of the active Palos Verdes Fault and liquefaction-prone soil, there is a substantial risk of seismic impacts such as fault rupture, seismic ground shaking, liquefaction, or other seismically induced ground failure. Construction would occur over an extended period, and increased exposure of people and property during construction to seismic hazards from a major or great earthquake cannot be precluded, even with incorporation of modern construction engineering and safety standards. Similarly, increased exposure of people and property during operations cannot be precluded, even with such safety standards. In comparison to the proposed Project, Alternative 2 would bring fewer people to the proposed project site by reducing the size of the land bridge and by reducing its functionality by not connecting it with the Avalon Development District.

However, impacts from seismically induced events from this alternative would be slightly greater than those from the proposed Project because the existing liquid bulk storage tanks would remain adjacent to the proposed park indefinitely. As with the proposed Project, impacts would be significant and unavoidable.

5.3.2.2.4 No Project Alternative (3)

Alternative 3 would not have any construction-related impacts on geologic resources, including impacts from seismically induced events. However, existing facilities, including the LADWP Marine Tank Farm and industrial and commercial buildings within the Avalon Development District, are potentially underlain by strands of the active Palos Verdes Fault and liquefaction-prone soil. Consequently, there is a substantial risk of seismic impacts such as fault rupture, seismic ground shaking, liquefaction, or other seismically induced ground failure within the proposed project area. Because existing facilities would not use modern engineering standards, existing structures are at a greater risk of seismically induced damage due to their age and construction techniques and materials. The result is that the historic Bekins Building would be exposed to greater risk of loss or damage, and the early 1900s waterfront bulkhead, which is beginning to show signs of distress, would be more likely to suffer damage leading to exposure of people and property to harm.

However, the No Project Alternative would expose fewer people to potential fault rupture, seismic ground shaking, liquefaction, or other seismically-induced ground failure within the project area. As discussed, No Project Alternative impacts from geologic hazards would expose fewer people to geologic hazards but would not update existing buildings to modern engineering standards when compared with the proposed Project; impacts as compared with the proposed Project would remain significant and unavoidable.

5.3.2.3 Noise

5.3.2.3.1 Proposed Project

Construction Noise. Construction activities would typically last more than 10 days in any 3-month period. Based on the thresholds for significance, an impact would be considered significant if noise from these construction activities would exceed existing ambient exterior noise levels by 5 dBA or more at a noise-sensitive use. Using the acoustic center from construction between Harry Bridges Avenue and C Street bound by Broad Street to the east and Lagoon Avenue to the west would raise the noise level approximately 6 dBA above the existing noise environment. Pile driving from the proposed park area would raise the noise levels approximately 15 dBA at the closest sensitive receptor (ST-3) as well as other noise-sensitive land uses in the area adjacent to ST-3. The construction of the Waterfront Red Car Line would raise noise levels at the closest sensitive receptors along Shields Drive (overlooking Pacific Avenue) by approximately 20 dBA.

Furthermore, the overlap of the Phase 1 operational stage with the Phase 2 construction stage would mean recreational users would be exposed to construction related noise. Proposed project elements such as the waterfront promenade and the first portion of the land bridge would be operational by 2012. Recreational users would be exposed to noise generated from the proposed Project construction. Operational locations located adjacent to Phase 2 construction sites would be exposed to intermittent noise levels that would prevent recreational and leisurely activities within these areas.

Construction would exceed the construction noise standards of more than 5 dB increase in ambient noise levels at the closest sensitive receptor ST-3. Although the City's noise ordinance exempts construction activities from the noise standard (providing that such activities take place between the hours of 7:00 a.m. and 9:00 p.m. Monday through Friday, 8:00 a.m. and 6:00 p.m. on Saturdays, and no time on Sundays), control measures are recommended as mitigation to reduce the noise levels to the extent practicable. However, even with the recommended control measures, the increase in noise levels would be considered a significant impact.

Implementation of mitigation measure **MM NOI-1** would reduce impacts resulting from construction noise; however, it would not be sufficient to reduce the projected increase in the ambient noise level to a level below significance. Even with implementation of this mitigation measure, construction equipment noise levels would be expected to remain significant. Thus, impacts on sensitive receptors resulting from construction would remain significant even after mitigation.

5.3.2.3.2 Reduced Development: No Avalon Development District Alternative (1)

Alternative 1 would reduce the development footprint and construction activities in comparison to the proposed Project by not including the industrial area north of Harry Bridges Boulevard (Area A) and north of A Street (Area B). This would eliminate the approximately 150,000 square feet of industrial and 58,000 square feet of retail commercial use for which the proposed Project would construct the necessary infrastructure and pedestrian amenities.

When compared with the proposed Project, Alternative 1 would result in reduced construction-related noise impacts because it is a smaller project and because construction would occur farther away from sensitive receptors in the Wilmington Community (ST-3, ST-4, ST-5, and ST-6). However, construction related impacts (Impact NOI-1) would remain significant and unavoidable.

Impacts from Alternative 1 related to noise would be reduced when compared to the proposed Project, but would remain significant and unavoidable.

5.3.2.3.3 Reduced Construction and Demolition: LADWP Marine Tank Farm to Remain Alternative (2)

Alternative 2 would develop the Avalon Development District, Waterfront Red Car Line/CCT, and much of the Avalon Waterfront District in the same manner as the proposed Project; however, this alternative would only complete the Phase I portion of the Avalon Waterfront District's interim land bridge. The Phase II portion, which would be developed on the LADWP Marine Tank Farm site by the proposed Project, would not be developed under this alternative. The site would remain in operation and under the ownership of LADWP.

Because this alternative would not develop the Phase II portion of the land bridge, the Harbor Generating Station and peaker plant units would not be located adjacent to the land bridge and any noise associated with their operation would have a reduced impact on the new park uses.

Alternative 2 would result in similar construction-related noise impacts as the proposed Project because construction would still occur in the Avalon Development District, and only noise associated with the construction of the Phase II land bridge would be eliminated. Sensitive receptors located in the Wilmington Community (ST-3, ST-4, ST-5, and ST-6) would still be impacted by construction-related noise (Impact NOI-1). However, construction duration and intensity after Phase I is complete (in approximately 2013) would be reduced.

Impacts from noise associated with Alternative 2 would be reduced when compared to the proposed Project because the alternative would propose park elements farther away from existing noise sources and would reduce construction duration and intensity after 2013; however, impacts from this alternative would remain significant and unavoidable due to construction-related impacts at the Avalon Waterfront District and Avalon Development District even with implementation of **MM NOI-1**.

5.3.2.3.4 No Project Alternative (3)

Alternative 3 would continue the existing uses on the proposed project site. Noise levels would remain the same as the baseline measurements listed in Section 3.9, "Noise." Existing noise-generating sources include freight trains, heavy truck traffic, surrounding Port tenant operations (including the Harbor Generating Station and peaker units), and passenger car traffic along Harry Bridges and Avalon Boulevards. Unlike the proposed project and the two design alternatives, the Alternative 3 would not bring sensitive receptors (recreational users) to the proposed project site. No construction-related noise impacts would occur. Impacts related to noise, namely noise generated from construction activities, would be substantially less than those generated from the proposed Project. No noise-related impacts would occur under the No Project Alternative.

5.3.3 Resources with Significant Impacts that Can Be Mitigated to Less than Significant

5.3.3.1 Biological Resources

5.3.3.1.1 Proposed Project

The proposed Project would result in the loss of 0.05 acres of aquatic marine habitat within the Inner Harbor. The loss of this habitat would be considered a significant effect upon aquatic marine resources including EFH for Pacific ground fish and coastal pelagic species that occur in the harbor. This impact would be mitigated in accordance with established interagency mitigation requirements, as described previously in Section 3.3, "Biological Resources." Implementation of MM BIO-1 would reduce impacts on marine habitat to less-than-significant levels.

5.3.3.1.2 Reduced Development: No Avalon Development District (Alternative 1)

Alternative 1 would reduce the development footprint and construction activities in comparison to the proposed Project by not including the industrial area north of Harry Bridges Boulevard (Area A) and north of A Street (Area B). This would eliminate the approximately 150,000 square feet of industrial and 58,000 square feet of retail commercial use for which the proposed Project would construct the necessary infrastructure and pedestrian amenities.

Alternative 1 would construct the same area of over-the-water viewing piers and floating docks and have the same in-water impacts. As with the proposed Project, implementation of MM BIO-1 would reduce impacts on marine habitat to less-than-significant levels.

Impacts from Alternative 1 related to biological resources would be the same as the proposed Project's, and would be less than significant after mitigation.

5.3.3.1.3 Reduced Construction and Demolition: LADWP Marine Tank Farm to Remain (Alternative 2)

Alternative 2 would develop the Avalon Development District, Waterfront Red Car Line/CCT, and much of the Avalon Waterfront District in the same manner as the proposed Project; however, this alternative would only complete the Phase I portion of the Avalon Waterfront District's interim land bridge. The Phase II portion, which would be developed on the LADWP Marine Tank Farm site by the proposed Project, would not be developed under this alternative. The site would remain in operation and under the ownership of LADWP.

Alternative 2 would construct the same area of over-the-water viewing piers and floating docks and have the same in-water impacts. As with the proposed Project, implementation of MM BIO-1 would reduce impacts on marine habitat to less-than-significant levels.

Impacts from Alternative 2 related to biological resources would be the same as the proposed Project's, and would be less than significant after mitigation.

5.3.3.1.4 No Project (Alternative 3)

Alternative 3 would continue the existing uses on the proposed project site. No in-water construction would occur and over-the-water viewing piers and floating docks would not be constructed. No impacts on biological resources would occur.

5.3.3.2 Cultural Resources

5.3.3.2.1 Proposed Project

Archaeology

Archival research has indicated that the proposed Avalon Development District is located within the center of the historic community of Wilmington. Therefore, future developments in this area have the potential to temporarily unearth and permanently destroy sensitive historical archaeological resources associated with the early development of Wilmington. Impacts on archaeological resources related to proposed project construction in the Avalon Development District would be significant. Furthermore, should avoidance of the Pacific Electric Railway not be determined feasible, impacts on this resource would be significant. Implementation of **MM CR-1**, **MM CR-2**, **MM CR-3,** and **MM CR-5** would reduce these impacts to a less-than-significant level.

Within the Avalon Waterfront District, excavation and trenching, as well as other ground-disturbing actions, have the potential to damage or destroy significant historical archeological resources associated with (1) Phineas Banning, Banning's Landing, and the early development of the port; and (2) a portion of Banning's Landing utilized by Northern forces during the Civil War for a depot to supply forces at the Drum Barracks. These areas should be avoided during construction to avoid impacts on significant archaeological resources. However, should avoidance be determined infeasible, a significant impact would occur. Implementation of **MM CR-4** would reduce this potential impact to a less-than-significant level.

Paleontology

Excavation, trenching, and pile driving, as well as other ground-disturbing actions, have the potential to damage or destroy significant paleontological resources within the proposed project area. Paleontological resources were analyzed for the five

components of the proposed Project: the project-level impact analysis for the Avalon Waterfront District, Avalon Development District Area B, and the California Coastal Trail, and the program-level impact analysis for Avalon Development District Area A, Avalon Triangle Park, and the Waterfront Red Car Line.

Excavation in the Avalon Waterfront District and removal of the LADWP oil tanks and remediation of the site would encounter Holocene-age sediments and artificial fill. The thickness of these overlying sediments above geologic deposits that may contain paleontological resources is not known. Any excavation operations within the LADWP Marine Tank Farm that reach underlying deposits of older Quaternary Alluvium or the San Pedro Sand have the potential to temporarily unearth and permanently destroy sensitive paleontological resources. These features would involve excavation for bridge footing in some areas, and for buildings and other structures.

Artificial fill materials presumably were derived from earlier channel dredging operations and were placed in such a way as to provide topographically high areas for development. No fossils of scientific interest are located in the artificial fill materials. Any organic remains have lost their original stratigraphic and geologic context due to the disturbed nature of the artificial fill materials.

The thickness of these fill materials is uncertain, as is the thickness of the Holocene-age younger alluvium; therefore, depth of cover to buried geologic deposits that may contain paleontological resources is not known. Without being able to review site-specific excavation plans and a more comprehensive geotechnical report of subsurface conditions in areas of deep excavation, it is not possible to assess the extent (i.e., depth of bedrock, depth of excavations, etc.) of proposed project impacts on paleontological resources. However, any excavation operations that reach underlying deposits of older Quaternary Alluvium or the San Pedro Sand have the potential to temporarily unearth and permanently destroy sensitive paleontological resources.

Within the Avalon Development District, near-surface excavations would encounter Holocene-age sediments and artificial fill, and, again, the depth to buried geologic deposits that may contain paleontological resources is not known. Any excavation operations within the Avalon Development District that reach underlying deposits of older Quaternary Alluvium or the San Pedro Sand have the potential to temporarily unearth and permanently destroy sensitive paleontological resources.

The eastern extent of the Waterfront Red Car Line/California Coastal Trail from Avalon Boulevard along Harry Bridges Boulevard is underlain by Holocene-age beach sediments and artificial fill. The thickness of these overlying sediments above geologic deposits that may contain paleontological resources is not known.

The western extent of the Waterfront Red Car Line/California Coastal Trail west of Figueroa Street along John S. Gibson Boulevard to Swinford Street is underlain by Quaternary alluvium, Quaternary older alluvium, and Pleistocene-age offshore marine deposits of San Pedro Sand. The Pleistocene-age San Pedro Sand is mapped at the surface between the Northwest and Southwest Slips, and in patches near the

Vincent Thomas Bridge. These deposits are of fossil-bearing age, and are of scientific interest if intact.

Any excavation operations for the Waterfront Red Car Line Extension/California Coastal Trail that reach underlying deposits of older Quaternary Alluvium or the San Pedro Sand have the potential to temporarily unearth and permanently destroy sensitive paleontological resources.

Construction of the proposed Project would result in significant impacts because of the potential to damage or destroy significant nonrenewable fossil resources. Implementation of **MM CR-6** by a qualified vertebrate paleontologist would reduce impacts to less-than-significant levels.

Historical Buildings

The proposed Project would not have a significant impact on Historical Buildings. As part of the proposed Project, the Bekins Building would be rehabilitated in accordance with the Secretary of the Interior's Guide to Rehabilitating Historic Buildings. All buildings proposed for demolition by the proposed Project do not qualify for historic designation.

5.3.3.2.2 Reduced Development: No Avalon Development District Alternative (1)

Alternative 1 would reduce the development footprint in comparison to the proposed Project by not including the industrial area north of Harry Bridges Boulevard (Area A) and north of A Street (Area B). This would eliminate the approximately 150,000 square feet of industrial and 58,000 square feet of retail commercial uses for which the proposed Project would construct the necessary infrastructure and pedestrian amenities. This would eliminate trenching and infrastructure installation in the Avalon Development District, resulting in less potential to disturb unknown archaeological or paleontological resources. The potential at the Avalon Waterfront District would remain the same as the proposed Project because all elements, including the land bridge park, waterfront promenade, and Observation Tower, would still be constructed. However, because the Bekins Building would not be rehabilitated in accordance with the Secretary of the Interior's Guidelines to Rehabilitating Historic Buildings, over time impacts to the Bekins Building would continue to deteriorate. Impacts on this historic structure would be greater under Alternative 1**.**

In comparison to the proposed Project, Alternative 1 would reduce the potential to disturb unknown archaeological or paleontological resources during construction because of the reduced proposed project footprint, but impacts would remain significant without mitigation. As with the proposed Project, with mitigation, impacts on archaeological and paleontological resources would be less than significant. Impacts on the historic Bekins Building would be greater under Alternative 1. Therefore, impacts under the Alternative 1 would initially be mixed

when compared with the proposed Project, but over time impacts to the historic Bekins Building would be significant and unavoidable.

5.3.3.2.3 Reduced Construction and Demolition: LADWP Marine Tank Farm to Remain Alternative (2)

Alternative 2 would develop the Avalon Development District (Areas A and B), Waterfront Red Car Line/CCT, and much of the Avalon Waterfront District in the same manner as the proposed Project; however, this alternative would only complete the Phase I portion of the Avalon Waterfront District's interim land bridge. The Phase II portion, which would be developed on the LADWP Marine Tank Farm site by the proposed Project, would not be developed under this alternative. The site would remain in operation and under the ownership of LADWP.

Impacts on unknown archaeological or paleontological resources would be slightly reduced by this alternative because development and improvement of the soils underneath the LADWP Marine Tank Farm would not occur. During soil excavation and remediation, it is possible the proposed Project would disturb unknown archaeological and paleontological resources. Under Alternative 2, no changes would occur to the tank farm or the underlying soils. However, as with the proposed Project, impacts on unknown archaeological or paleontological resources would be significant prior to mitigation. After mitigation, impacts would be reduced to less than significant.

5.3.3.2.4 No Project Alternative (3)

Alternative 3 would not have any construction-related impacts on unknown archaeological or paleontological resources. No impacts would occur to either archaeological or paleontological resources. However, because the Bekins Building would not be rehabilitated in accordance with the Secretary of the Interior's Guidelines to Rehabilitating Historic Buildings, over time the Bekins Building would continue to deteriorate. Impacts on this historic structure would be greater under the No Project Alternative.

Impacts on cultural resources under the No Project Alternative would be mixed when compared with the proposed Project. Impacts on archaeological and paleontological resources would be reduced. However, impacts on historic structures would be significant and unavoidable.

5.3.3.2 Groundwater and Soils

5.3.3.2.1 Proposed Project

The proposed Project would result in exposure of soils containing toxic substances and petroleum hydrocarbons associated with prior operations, which would be

deleterious to humans based on regulatory standards established by the lead agency for the site. Specifically, grading and construction would potentially expose construction personnel, existing operations personnel, and Phase 1 recreational users to contaminated soil, toxic plumes, or contaminated water. Grading and construction activities may also encounter previously unidentified USTs, hazardous materials, petroleum hydrocarbons, or hazardous or solid wastes. Additionally, demolition of structures built prior to 1980 may result in the exposure of the public and/or the environment to ACMs and/or lead based paint and would require compliance with the SCAQMD. Human health and safety impacts would be significant pursuant to exposure levels established by CalEPA's OEHHA.

Implementation of **MM GW-1**: Preparation of a Soil Management Plan or Phase II Environmental Site Assessment, **MM GW-2:** Site Remediation, and **MM GW-3:** Contamination Contingency Plan for Non-Specific Facilities and Unidentified Sources of Hazardous Materials would reduce project-related impacts to less-than-significant levels.

5.3.3.2.2 Reduced Development: No Avalon Development District Alternative (1)

Alternative 1 would reduce the development footprint in comparison to the proposed Project by not including the industrial area north of Harry Bridges Boulevard and a portion north of A Street. This would eliminate the approximately 150,000 square feet of industrial and 58,000 square feet of retail commercial uses for which the proposed Project would construct the necessary infrastructure and pedestrian amenities. Grading and construction work would be limited to the Avalon Waterfront District and Waterfront Red Car Line/CCT resulting in less grading and excavating in soils. Less earthwork would reduce the potential of exposing work personnel to contaminated soils and groundwater, which would reduce the potential for adverse health effects.

However, as with the proposed Project, the demolition of the LADWP Marine Tank Farm liquid bulk storage tanks and remediation of the sites would occur. Any contaminated groundwater or soils encountered in the process of demolition and remediation would be the same as the proposed Project. Impacts from demolition and remediation within the Avalon Waterfront District would be equal to the proposed Project.

Therefore, impacts related to groundwater and soils from the implementation of Alternative 1 would be slightly less than the proposed Project because no earthwork including excavation or trenching would occur in the Avalon Development District; impacts related to groundwater and soils within the Avalon Waterfront District and Waterfront Red Car Line would be the same as the proposed Project (less than significant with mitigation).

5.3.3.2.3 Reduced Construction and Demolition: LADWP Marine Tank Farm to Remain Alternative (2)

Alternative 2 would develop the Avalon Development District, Waterfront Red Car Line/CCT, and much of the Avalon Waterfront District in the same manner as the proposed Project; however, this alternative would only complete the Phase I portion of the Avalon Waterfront District's interim land bridge. The Phase II portion, which would be developed on the LADWP Marine Tank Farm site by the proposed Project, would not be developed under this alternative. The site would remain in operation and under the ownership of LADWP. This would preclude development of the Marine Tank Farm site from contributing to a significant, adverse groundwater and soils impact, but it would also preclude the remediation of the site. Because the site would not undergo remediation, the long-term groundwater and soil conditions would continue to deteriorate and contamination would likely worsen. In sum, while construction-related impacts from groundwater and soils would be eliminated at the site, operational impacts would worsen.

Furthermore, impacts associated with the remaining project site grading and excavation work would be equal to the proposed Project because all other elements proposed under this alternative are the same as the proposed Project.

Impacts from potential groundwater and soil contamination on construction personnel would be slightly reduced by this alternative because of the reduced exposure and lack of remediation at the LADWP Marine Tank Farm site, but contamination at the site would potentially worsen over time to create significant groundwater and soil impacts at the project site; impacts related to groundwater and soils would be worse under this alternative when compared with the proposed Project and would be significant and unavoidable.

5.3.3.2.4 No Project Alternative (3)

Because construction activities would not occur under Alternative 3, no construction-related impacts on groundwater and soils would result. However, impacts on groundwater and soils from existing operations would continue to occur and overtime may increase when compared with existing conditions. Moreover, site remediation would not necessarily occur at the LADWP Marine Tank Farm or other locations within the proposed project site at some future time; therefore, groundwater and soil contamination would continue to be present, potentially exposing operational personnel and site occupants to health risks. Impacts from contaminated groundwater and soils would be significant and unavoidable.

Therefore, impacts on groundwater and soils from the No Project Alternative would be mixed when compared with the proposed Project.

5.3.3.3 Transportation

5.3.3.3.1 Proposed Project

Proposed project construction would result in a temporary increase in traffic volumes and a decrease in roadway capacity due to temporary lane closures. The following impacts would result from the proposed Project.

- Reduced roadway capacity and an increase in construction-related congestion would result in temporary localized increases in traffic congestion that exceed applicable LOS standards.
- Construction activities would disrupt existing transit service in the proposed project vicinity. Impacts may include temporary route detours, reduced or no service to certain destinations, or service delays.
- Construction activities would increase parking demand in the proposed project vicinity and may result in parking demand exceeding the available supply.
- Construction activities would disrupt pedestrian and bicycle travel. Impacts include temporary sidewalk or roadway closures that would create gaps in pedestrian or bicycle routes and interfere with safe travel.
- Construction activities would increase the mix of heavy construction vehicles with general purpose traffic. Impacts include an increase in safety hazards due to a higher proportion of heavy trucks.

Proposed mitigation would require LAHD to develop and implement a Traffic Control Plan throughout proposed project construction. Implementation of **MM TC-1** would reduce impacts during construction to a level less than significant.

During its operation, the proposed Project would increase demand for expanded commercial, recreational, and other proposed waterfront facilities and would therefore increase the number of people traveling to and from the Wilmington Waterfront area. The resulting increase in traffic volumes on the surrounding roadways would in turn degrade intersection operation at Avalon Boulevard and Anaheim Street. This impact would occur when the proposed Project's incremental contribution was added to the near term operation. Implementation of **MM TC-2** would improve the intersection's level of service to an acceptable level. The impact after mitigation would be less than significant.

5.3.3.3.2 Reduced Development: No Avalon Development District Alternative (1)

During construction, Alternative 1 would still have many if not all of the same impacts discussed under the proposed Project. Lane closures would be likely and disruption to local street networks and transit schedules might occur. As with the proposed Project, a Traffic Control Plan would be implemented throughout

construction. Impacts during construction would be mitigated to a level less than significant.

More specifically, however, Alternative 1 would substantially reduce the number of ADTs that would be generated by the proposed Project by not including the development of the Avalon District Area A (Light Industrial) and Area B (Commercial). Of the approximately 5,140 daily trips that would be generated by the proposed Project, approximately 3,537 would be eliminated from not developing the Avalon Development District. This would eliminate a substantial number of ADTs from the surrounding street network and impacts would be significantly reduced. Under this alternative, it is likely that the contribution to present and reasonably foreseeable future projects traffic volumes would be negligible and less than significant even without mitigation. When compared to the proposed Project, Alternative 1 would have reduced impacts on ground transportation.

5.3.3.3.3 Reduced Construction and Demolition: LADWP Marine Tank Farm to Remain Alternative (2)

As with Alternative 1, during construction Alternative 2 would have many of the same impacts discussed under the proposed Project. Lane closures would be likely and disruption to local street networks and transit schedules might occur. As with the proposed Project, a Traffic Control Plan would be implemented throughout construction. Impacts during construction would be mitigated to a level less than significant.

Like Alternative 1, Alternative 2 would reduce the number of ADTs that would be generated by the proposed Project by not completing the remaining 6-acre Land Bridge and associated parking area. However, of the approximately 5,140 daily trips that would be generated by the proposed Project only a small percent would be eliminated by not completing the Land Bridge. Traffic generated from this alternative would be similar to the proposed Project. Impacts to the surrounding street network would not be reduced in any meaningful way. Under this alternative, the traffic contribution to present and reasonably foreseeable future projects traffic volumes would be similar to the proposed Project and would be less than significant after mitigation. When compared to the proposed Project, Alternative 2 would have similar impacts on ground transportation.

5.3.3.3.4 No Project Alternative (3)

Alternative 3 would keep the existing uses in place and only allow modest improvements in future years that are allowed by right through the underlying zone. No significant construction would occur under this alternative and, therefore, this alternative would not result in any construction-related traffic impacts.

Existing traffic generators such as the LADWP Marine Tank Farm, the industrial businesses to the north in the Avalon Development District, and Banning's Landing

would continue to generate modest ADTs. Operational impacts on the street network would remain less than significant. As compared to the proposed Project, Alternative 3 would have a reduced impact on ground transportation.

5.3.3.4 Utilities

5.3.3.4.1 Proposed Project

Construction or Expansion of Utilities. The proposed Project is located within an existing industrial area, and significant water, wastewater, gas and electricity mains already exist along the streets. The proposed Project would include commercial and industrial development, demolition of existing structures, acquisition of LADWP property, removal of LADWP oil tanks, remediation of the LADWP site, building a land bridge and Observation Tower, and extension of the coastal trail and the Waterfront Red Car line along Harry Bridges Boulevard, John S. Gibson Boulevard, and Front Street. All these activities would require construction of new onsite utility lines (water, wastewater, and storm drains) to serve the proposed project operations; the relocation and/or extension of some existing utility lines would also be required. These new utilities would tie into the existing utility lines that serve the proposed Project site. The proposed Project would retain, relocate, or rebuild, and protect utilities as appropriate as part of the proposed Project. The proposed Project would include adding several mainlines off the existing 24-inch recycled water mainline so that all landscaping and water features would be supplied with recycled water.

Based on the estimated wastewater flows and the current flow capacity of the existing sewer lines, the existing sewer system would not be able to accommodate the total flow from the proposed Project. This would be a significant impact on the existing conveyance system. Individual project components such as future industrial development projects, restaurant uses, and the restroom facility associated with the Observation Tower would be connected to the existing mains, as part of the proposed Project. Specific needs for industrial tenants would be analyzed at a later stage in separate environmental documents; as individual projects are proposed, more information is available for impact analysis.

Once the design and utility connections are finalized, LAHD will build a secondary sewer line of sufficient capacity to support the nearest, largest sewer line. The construction of the secondary sewer line would be carried out within public right-of-way or existing City streets. This line will comply with the City's municipal code, and will be built under permit by the City Bureau of Engineering. Any impacts, including impacts to cultural resources, associated with excavation activities would comply with the proposed Project's MMRP.

The impacts associated with utility line relocation and rebuilding would include lane closures and affect access to commercial and industrial establishments and other land uses in the proposed project vicinity. Construction-related impacts may also involve temporary interruption of service to surrounding developments and would likely result in limited traffic diversions as a result of trenching and laying down and installation or relocation of utility lines. LAHD would prepare a Public Services

Relocation Plan as part of the proposed Project to address the public utilities that would be affected by proposed project construction, which would be reviewed by the service providers and City departments prior to implementation. All infrastructure improvements and connections would occur within City streets or public right-of-way, would comply with the City's municipal code, and would be performed under permit by the City Bureau of Engineering and/or LADWP. Additionally, the impacts of the utility line relocation and rebuilding, including services disruption, would be temporary and for a short duration, and any customers affected would be forewarned with notices. Impacts would be less than significant.

Water Supply Demand and Capacity. Operation of the proposed Project would demand about 44,180 gpd or 50 afy of water in 2015 and about 85,312.5 gpd or 96.5 afy in 2020. The projected 2015 and 2020 water demand represents an increase of 435 and 645% over the existing conditions, respectively. The projected 2015 and 2020 water demands represent an increase of 44.5 and 91.1 afy from the baseline water demand (4.5 afy), respectively. In accordance with LAHD's commitment to reduce and conserve the amount of water used in the proposed project area, infrastructure would be incorporated to support the use of reclaimed water for landscaping purposes (parks, road medians). The proposed Project would utilize 20.7 and 56.5 afy of recycled water in 2015 and 2020, respectively, from the Terminal Island Reverse Osmosis facility. Currently, there is a 24-inch recycled water mainline that runs from Terminal Island to Harry Bridges Boulevard and along Broad Avenue. The proposed Project would include constructing several mainlines off this existing line so that all landscaping and water features would be supplied with recycled water (per Table 3.12-6 a total of 49,950 gpd). The 2015 water demand of the proposed Project after use of recycled water would represent 0.004% of the estimated water demand of 705,000 afy for the LADWP service area in 2015. The 2020 water demand of the proposed Project after use of recycled water would represent 0.005% of the estimated water demand of 731,000 afy for the LADWP service area in 2020.

Pursuant to State CEQA guidelines Section 15155(a)(1)(G), it appears the proposed Project would consume an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project. For this reason, LAHD would need to comply with the WSA requirements of the State Water Code (Section 10910-10915). Preparation of the WSA is underway. It is anticipated that the WSA will conclude that there would be sufficient supply of water for the proposed Project. The WSA will be included as an appendix to the Final EIR.

5.3.3.4.2 Reduced Development: No Avalon Development District Alternative (1)

Alternative 1 would reduce the development footprint in comparison to the proposed Project by not including the industrial area north of Harry Bridges Boulevard and a portion north of A Street. This would eliminate the approximately 150,000 square feet of industrial and 58,000 square feet of retail commercial uses for which the proposed Project would construct the necessary infrastructure and pedestrian amenities. Grading and construction work would be limited to the Avalon

Waterfront District and Waterfront Red Car Line/CCT. Lack of development within the Avalon Development District would reduce the need for new or expanded utilities and would decrease the proposed Project's water demand by removing the 150,000 square feet of industrial and 58,000 square feet of retail uses.

Water demand would be based on the development within the Avalon Waterfront District and California Coastal Trail's greenbelt. This alternative would still construct several mainlines off of the existing 24-inch recycled water mainline that runs from Terminal Island to Harry Bridges Boulevard and along Broad Avenue for all proposed landscaping and water features. Demand in this area would be equal to the proposed Project.

Therefore, impacts on existing utilities resulting from the implementation of Alternative 1 would be reduced when compared with the proposed Project because no development would occur in the Avalon Development District; as with the proposed Project, impacts would be less than significant after mitigation.

5.3.3.4.3 Reduced Construction and Demolition: LADWP Marine Tank Farm to Remain Alternative (2)

Alternative 2 would develop the Avalon Development District, Waterfront Red Car Line/CCT, and much of the Avalon Waterfront District in the same manner as the proposed Project; however, this alternative would only complete the Phase I portion of the Avalon Waterfront District's interim land bridge. The Phase II portion, which would be developed on the LADWP Marine Tank Farm site by the proposed Project, would not be developed under this alternative. The site would remain in operation and under the ownership of LADWP. This would preclude development of the Marine Tank Farm site and reduce the load on the existing utility systems by reducing energy need for the land bridge; it would also reduce water demand by proposing approximately 6 fewer acres of landscaping/open lawn as the proposed Project. However, with the reduction in the land bridge, fewer solar panels would be installed because of the lack of canopies proposed with the Phase II land bridge. Other locations may be feasible, but they would require additional design work to identify.

When compared to the proposed Project, Alternative 2 would have slightly less demand on utility systems and would require less new or modified infrastructure to meet the needs of the development. In addition, water demand associated with this alternative would be lower due to the reduction of landscaping/open lawn as a consequence of the elimination of the Phase II land bridge. As with the proposed Project, impacts would be less than significant after mitigation.

5.3.3.4.4 No Project Alternative (3)

Alternative 3 would not propose any construction, which would mean no construction-related impacts on utility service systems would occur. It is reasonably

foreseeable that existing uses' operations and/or size may increase, which may require additional infrastructure capacity and improvements to the conveyance systems for wastewater and water supply. However, no discretionary actions would be taken, limiting expansion to those actions which would be processed under the ministerial process. Impacts on utilities from the No Project Alternative would be less than under the proposed Project; however, neither the proposed Project nor the No Project Alternative would result in significant and unavoidable impacts on utilities.

5.4 Environmentally Superior Alternative

Based on the above analysis, the No Project Alternative is the environmentally superior alternative because it would create fewer adverse impacts, including those which would be significant and unavoidable. However, CEQA Guidelines Section 15126.6(e)(2) requires that in cases where the No Project Alternative is determined to be the environmentally superior alternative, another must also be identified as Environmentally Superior. Consequently, both the No Project Alternative (3) and the Reduced Development: No Avalon Development District Alternative (1) would be the environmentally superior alternatives.

Under the No Project Alternative, impacts on air quality, biological resources, noise, and utilities would be reduced in comparison to the proposed Project. Impacts on geology, groundwater and soils, and cultural resources would be greater than the proposed Project. However, discretionary actions would not be allowed under the No Project Alternative. Minor expansions and building modifications would be allowed, but substantial redevelopment or coordinated planning efforts would not. No proposed project objectives would be met (as discussed in Section 5.2.3.3.1).

Under the Reduced Development: No Avalon Development District Alternative, the Avalon Waterfront District would be developed in the same manner as the proposed Project, but no effort would be made to improve the Avalon Development District. Consequently, development in this district would not be in coordination with the rest of the Wilmington Waterfront Development Program. Impacts on air quality, geology, noise, transportation, and utilities would be slightly reduced, while impacts on cultural resources due to the indefinite neglect of the historic Bekins Building would be significant and unavoidable.

As discussed above in Section 5.2.3.1.1, Alternative 1 would meet all of the proposed project objectives except for #4, which aims to enhance the livability and the economic viability of the Los Angeles Harbor area, Wilmington community, and surrounding region by promoting sustainable economic development and technologies within the existing commercial Avalon Development District. Because Alternative 1 would not develop the Avalon Development District, sustainable economic development and technologies would not be promoted in this area.

However, as noted in Table 5-2, Alternatives 1 and 2 would result in additional significant and unavoidable impacts (Cultural Resources and Groundwater and Soils,

respectively). In addition, while the alternatives have slightly reduced impacts in more environmental resource areas, the proposed Project would have less than significant or less than significant after mitigation impacts in all but three resource areas.

5.5 Alternatives Considered but Eliminated

As discussed in Section 5.2.1 above, CEQA requires an EIR to present a range of reasonable alternatives to the proposed Project, or to the location of the project, that could feasibly attain a majority of the basic project objectives, but would avoid or substantially lessen one or more significant environmental impacts of the project. CEQA also requires an evaluation of the comparative merits of the alternatives. An EIR is not required to consider alternatives that would be infeasible or that would not reduce any identified significant impact.

The following project alternatives were considered in the selection process, but were rejected due to the presence of one or more of the following:

- determined infeasible due to physical, legal, or technical factors;
- inability to meet a majority of the project objectives; or
- inability to reduce one or more identified significant impact(s).

The alternatives below were considered, but eliminated from further analysis:

- Alternative Project Designs—Avalon Pier Project Design
- No In-Water Development
- No street vacation of Avalon Boulevard or realignment of Broad Avenue
- Other sites within the Port boundaries and LAHD jurisdiction

5.5.1 Alternative Project Designs Previously Considered

During the conceptual design and planning stages of the Wilmington Waterfront Development Program, several design alternatives to the proposed Project were considered. All of these alternatives were variations on the park design and theme and none of the alternatives considered a different land use at the waterfront.

5.5.1.1 Avalon Pier and Harbor Steps Projects

Both of these previous design alternatives have many similarities with the proposed Project. Development of the Avalon Development District would be largely the same

except for the closing of Marine Avenue to through traffic. The Avalon Waterfront District would have notable differences, including more development that could support commercial or industrial uses, no land bridge, and a reduction in the area dedicated to open space and recreation. More waterside development would occur as well to support the installation of a large viewing pier.

While both designs meet all of the proposed Project's objectives, neither would have resulted in a reduction of one or more significant environmental impacts. More waterside development would have been required, potentially resulting in greater marine impacts. More traffic would have been generated due to the larger focus on future industrial and commercial development. Because the Harbor Rail Line would remain exposed, people using the project facilities would have been exposed to greater noise levels from freight trains and automobiles travelling along Water Street. Therefore, both of these design alternatives were removed from consideration because neither would have reduced one or more significant proposed project–related impacts to a less-than-significant level.

5.5.1.2 Connected Bands

This alternative has more in common with the proposed project than either Avalon Pier or Harbor Steps. Both this alternative and the proposed Project would provide open space and recreation where the LADWP Marine Tank Farm is currently. Both would develop a more substantial land bridge (rather than just a narrow pedestrian bridge) over the Harbor Rail Line and the realigned Water Street. Future area set aside for commercial and industrial development in the Avalon Development District is similar as well. However, this alternative would have slightly greater waterside development.

Like the Avalon Pier and Harbor Steps design alternatives, this alternative would meet all the proposed project objectives. However, this alternative was removed from further consideration because of its similar design compared with the proposed Project, which would not have reduced one or more significant environmental impacts to less than significant.

5.5.2 No In-Water Development

The proposed Project would enhance the waterfront area by installing approximately 43,220 square feet of new over-water viewing piers, 17,880 square feet of replacement piers, and two floating docks measuring 5,870 square feet in total. The proposed Project would also upgrade the existing early 1900's bulkhead wall that is currently in a deteriorated condition. In addition, the proposed Project would remove the 30,860-square-foot Catalina Freight building, the 2,370-square-foot National Polytechnic College of Science Hyperbaric Chamber Building, and the 1,800-square-foot National Polytechnic College of Science Welding Pier to provide area for the waterside improvements.

Under this alternative, all work in the water associated with the waterfront development is eliminated from the proposed development plan. No over-water piers or floating docks would be constructed. Existing structures would remain. The existing bulkhead would not be replaced or reinforced. All proposed landside work would remain.

The result would be a project alternative that could potentially avoid any in-water and over-water construction and reduce the noise generated by pile driving. Any impacts associated with demolition at the water's edge would be eliminated. Fill material and construction associated with the bulkhead improvements would not be needed.

However, because the bulkhead is in a deteriorated condition, technical factors require that extensive reinforcement take place to ensure public safety due to structural instability, particularly in the event of a seismic occurrence. Changes to the grade level at the water's edge due to project elements such as the promenade, land bridge, observation tower, and restaurant uses require that the bulkhead wall undergo reconstruction to support the additional structure loads proposed to fulfill Objective #2. Existing seismic regulations require that the aged bulkhead wall be reinforced to ensure adverse health and safety impacts would not occur.

Because this alternative would not be technically feasible due to engineering and safety regulatory considerations, this alternative was eliminated from further consideration.

5.5.3 No Street Vacation of Avalon Boulevard or Realignment of Broad Avenue

The proposed Project would downgrade and then vacate the portion of Avalon Boulevard south of A Street and realign Broad Avenue to the waterfront. This would improve pedestrian access and safety at Avalon Boulevard while maintaining vehicular access to the waterfront.

This alternative would not vacate the south portion of Avalon Boulevard nor realign Broad Avenue. Vehicular access would still be provided by Avalon Boulevard, and Broad Avenue would still terminate at Avalon. This would cause the 1-acre entry park at the southeast corner of Harry Bridges and Avalon Boulevards to constrict. A large section of the land bridge park would be eliminated as a development option, and the contiguous open space element from Harry Bridges Boulevard to the waterfront would be eliminated. All other development elements would remain the same as the proposed Project.

This development alternative was eliminated from further consideration because it would not reduce a significant unavoidable impact or meet Objective #2 of the proposed Project, which aims to design and construct a waterfront park and promenade to enhance the connection of the Wilmington community with the waterfront.

5.5.4 Other Sites within LAHD Jurisdiction

The design and placement of the proposed Project was guided by the desire to construct a project that would serve as a regional draw and attract visitors to the waterfront in Wilmington, build a waterfront park and promenade to enhance the connection of the Wilmington community with the waterfront, create a unified Los Angeles waterfront, and enhance the livability and economic viability of the Los Angeles Harbor area, Wilmington community, and surrounding region.

The proposed project site is aligned with Avalon Boulevard, the Wilmington community's main north–south thoroughfare, which links the community to the waterfront. Avalon Boulevard connects the heart of the Wilmington commercial center with Banning's Landing Community Center, which already serves as a community focal point. In addition, due to Avalon Boulevard's width and north–south orientation, the community is provided with a nearly straight view of the waterfront land uses, which would be enhanced with the realignment of Avalon Boulevard as called for in the proposed Project. These factors have provided the proposed project site with a unique advantage over alternative sites to serve as a regional park due its existing importance to the Wilmington community, its high visibility, and potential ease of access for the Wilmington community.

Additional sites with a waterfront component that approach the proposed project site's size and accessibility are not readily available. Other sites would not satisfy Objectives #1, #2, #4, and #6, because these objectives contain conditions that alternative sites are not able to meet.

For instance, Objective #1 aims to construct a project that will serve as a regional draw and attract visitors to the waterfront in Wilmington, and, similarly, Objective #2 calls for the project to enhance the connection of the Wilmington community with the waterfront. The proposed project site is the logical extension of the Wilmington community due to its location at the end of Avalon Boulevard, and therefore serves as the de facto "Wilmington waterfront." Another site with waterfront area, even if made available through acquisition and relocation of current tenants, would not provide the direct line of sight and natural extension of the Wilmington community, and would therefore be unable to satisfy Objectives #1 and #2.

Objective #4 aims to enhance the livability and the economic viability of the Los Angeles Harbor area, Wilmington community, and surrounding region by promoting sustainable economic development and technologies within the existing commercial Avalon Development District. This objective is specific to the location of the proposed project site and would not be met if an alternate site were selected. Likewise, Objective #6 aims to extend the Port of Los Angeles Plan and Port Master Plan to encompass the proposed project area to provide LAHD with better means to improve future development and economic conditions in the area. An alternate site would not meet the proposed Project's objective because the boundary extensions are specific to the area north of Water Street and south of C Street, which would allow the Port of Los Angeles Plan and Port Master Plan to match up with the existing boundaries to the west, while permitting LAHD more land use authority over areas within the coastal zone and which are largely owned by LAHD.