

VOLUME I

DRAFT ENVIRONMENTAL IMPACT REPORT

SCH NO. 2013041063

BELMONT POOL REVITALIZATION PROJECT

CITY OF LONG BEACH

Submitted to:

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April 2016



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1.0 EXECUTIVE SUMMARY

1.1 INTRODUCTION

The California Environmental Quality Act (CEQA) requires that local government agencies, before taking action on projects over which they have discretionary approval authority, consider the environmental consequences of such projects. An Environmental Impact Report (EIR) is a public document designed to provide both the public and local and State governmental agency decision-makers with an analysis of potential environmental consequences to support informed decision-making.

This Draft EIR has been prepared by the City of Long Beach (City) to analyze the potential environmental impacts of the proposed Belmont Pool Revitalization Project (proposed Project); to discuss alternatives; and to propose mitigation measures for identified potentially significant impacts that will minimize, offset, or otherwise reduce or avoid those environmental impacts. Data for this Draft EIR was obtained from on-site field observations; discussion with affected agencies; review of adopted plans and policies; review of available studies and reports; and specialized environmental assessments prepared for the proposed Project (e.g., air quality, biological resources, cultural resources, geology, hazards and hazardous materials, hydrology and water quality, paleontological resources, noise, and traffic).

1.2 SUMMARY OF PROJECT DESCRIPTION

The Belmont Plaza Olympic Pool (Belmont Pool) site is operated by the City Department of Parks, Recreation, and Marine and is located in the Belmont Shore Beach Park in southeast Long Beach. The proposed Project site is bordered on the south by the Pacific Ocean, the beach, bicycle and pedestrian pathways, and volleyball courts; on the west by Belmont Veterans Memorial Pier, Belmont Beach, and the Pier Parking Lot; and on the northwest by Surf Terrace Apartments, Belmont Shores Condominiums, and a Jack in the Box restaurant; on the north by several businesses located along the northern side of East Olympic Plaza; on the northeast by the Belmont Shore neighborhood; on the east by the City beach maintenance yard, the temporary outdoor pool, Rosie's Dog Beach, a boat launch, and the Beach Parking Lot.

The proposed Project would replace the former Belmont Pool facility and provide the City with a revitalized and modern pool complex. The Project proposes the construction and operation of an approximately 125,500 square foot (sf) pool complex that includes indoor and outdoor pool components and an approximately 1,500 sf cafe. Permanent indoor seating for approximately 1,250 spectators would be provided to view competitive events at the indoor 50-Meter Competition Pool and the Dive Pool. Temporary outdoor seating would be provided for larger events at the outdoor 50-Meter Competition Pool with a maximum seating capacity of up to 3,000 spectators. The proposed Project does not include any permanent outdoor seating designed for spectator viewing.

The proposed Project would consist of three main areas: the pool facility; the open space/park area; and the outdoor café area, including a public restroom facility. The pool facility consists of the recreational and competitive aquatic components and would be the central focus of the Project site. The passive park area would be situated along the western and northern portions of the Project site and near the outdoor café on the east side, and would be intended for general park uses, similar to the uses at the existing passive park. A comparison of the proposed Project with the former Belmont Pool facility is presented in Table 1.A.

Table 1.A: Project Component Comparison Table

Project Component	Former Pool	Proposed Project	Change
Lot Size	5.8 ac	5.8 ac	0 ac
Building Size	45,595 sf	125,500 sf	+79,905 sf
Maximum Building Height	60 ft	71 ft	+11 ft
Indoor Pool Surface Area	14,010 sf	18,610 sf	+4,600 sf
Outdoor Pool Surface Area	4,400 sf	17,840 sf	+13,440 sf
Open Space Area	118,790 sf	127,085 sf	+8,295 sf
Passive Park/Landscaped Area	45,160 sf	55,745 sf	+10,585 sf
Seating	2,500	4,250*	+1,750 ¹
Restaurant/Cafe	5,665 sf	1,500 sf	-4,165 sf
Public Restrooms	0 sf	600 sf	+600 sf

Source: City of Long Beach (2016).

* Permanent indoor seating = 1,250. Temporary outdoor seating = 3,000.

ac = acre(s)

ft = foot/feet

sf = square feet

A pick-up and drop-off area would be located along the eastern boundary and would be adjacent to the café/restroom area at the southeastern corner of the Project site. East Olympic Plaza would be closed to vehicular traffic.

See Chapter 3.0, Project Description, for a complete description of the Project components.

1.3 SIGNIFICANT UNAVOIDABLE IMPACTS

Section 15126.2(b) of the *State CEQA Guidelines* requires that an EIR describe significant environmental impacts that cannot be avoided if the proposed Project is implemented, including those effects that can be mitigated but not reduced to a less than significant level. As determined in the contents of this Draft EIR, implementation of the proposed Project would not result in any significant and unavoidable adverse impacts. All potentially significant impacts have been effectively mitigated to a less than significant level.

1.4 ALTERNATIVES

The following five alternatives to the proposed Project were selected for consideration, including the No Project/No Development Alternative as required by CEQA:

- Alternative 1: No Project/No Development
- Alternative 2: Maintain Temporary Pool with Ancillary Uses
- Alternative 3: Outdoor Diving Well
- Alternative 4: Reduced Project – No Outdoor Components
- Alternative 5: Reduced Project – No Diving Well and No Outdoor Components

In evaluating an appropriate range of alternatives to the proposed Project, a number of alternatives were considered and rejected by the Lead Agency. These included consideration of the following options:

- Fully Enclosed Pools Alternative
- Alternative Project Locations

Each of these alternatives was rejected for differing reasons, as described further in Chapter 5.0, Alternatives.

The No Project/No Development Alternative would be environmentally superior to the proposed Project on the basis of the lack of physical impacts that would occur with the No Project/No Development Alternative. While the No Project/No Development Alternative would lessen or avoid the impacts of the proposed Project, the beneficial impacts of the proposed Project—including the provisions of a permanent aquatic recreational complex not currently provided by the City—would not occur, and none of the Project objectives would be met. Overall, however, the No Project/No Development Alternative is considered environmentally superior because the physical impacts associated with this alternative are significantly less than the proposed Project and other alternatives.

The *State CEQA Guidelines* require that if the environmentally superior alternative is the No Project Alternative, “the EIR also identify an environmentally superior alternative among the other alternatives” (*State CEQA Guidelines* Section 15126.6[e][2]). Alternative 5, Reduced Project – No Diving Well and No Outdoor Pool Components, would lessen most of the environmental impacts as compared to the proposed Project. Although Alternative 5 would be considered environmentally superior to the proposed Project, the reduction of recreational facilities would not achieve the goals and objectives of the proposed Project, and would not be consistent with the primary objective of the City, which is to replace the former Belmont Pool facility with a more modern facility that better meets the needs of the local community, region, and State’s recreational and competitive swimmers, divers, aquatic sports participants, and additional pool users due to the tremendous demand for these services in the local community, region, and State. Therefore, Alternative 5 would meet some of the Project objectives, but not to the same degree as the proposed Project.

The alternatives analysis is described in greater detail in Chapter 5.0, Alternatives, of this Draft EIR.

1.5 AREAS OF CONTROVERSY

Pursuant to *State CEQA Guidelines* Section 15123, this Draft EIR acknowledges the areas of controversy and issues to be resolved that are known to the City or that were raised by agencies and

the public. Key environmental issues and concerns raised in the responses to the Initial Study/Notice of Preparation (IS/NOP) included (1) potential for increased traffic, (2) potential for discovery of cultural resources, (3) potential for air quality impacts, (4) increases in wastewater discharges, (5) potential for impacts to storm drain facilities, and (6) concerns of pool design and amenities meeting the overall desires of the swimming community. Additionally, based on input from the City Council, the Stakeholders Advisory Committee, the general public, and the California Coastal Commission, the major common issues of concern raised included (1) loss of park space, (2) wildlife, (3) parking, (4) noise, (5) aesthetics, (6) geologic stability, (7) design features, and (8) cost.

This Draft EIR addresses all environmental issues of concern raised during the NOP comment period, examines Project-related and cumulative environmental impacts, identifies significant adverse environmental impacts, and proposes mitigation measures designed to reduce or eliminate potentially significant impacts of the proposed Project.

1.6 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table 1.B identifies the potential environmental impacts, proposed mitigation measures, and level of significance after mitigation is incorporated into the proposed Project. Table 1.B also identifies cumulative impacts resulting from the proposed Project in conjunction with the approved and pending cumulative projects, which are listed in Chapter 4.0, Existing Environmental Setting, Environmental Analysis, Impacts, and Mitigation Measures, of this Draft EIR. Environmental topics addressed in this Draft EIR include Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions, Hazardous Materials, Hydrology and Water Quality, Land Use, Noise, Recreation, Transportation and Circulation, and Utilities and Service Systems.

In addition to identifying potentially significant impacts of the proposed Project that required additional study, the IS also identified effects determined not to be significant consistent with *State CEQA Guidelines* Section 15063(c)(3)(B). Impacts that were determined to be less than significant were discussed and evaluated in the IS contained in Appendix A of this Draft EIR. The analysis determined that the proposed Project would result in no impacts to agricultural resources, public services, population and housing, or mineral resources. Additionally, the IS substantiates the determination that the proposed Project would result in less than significant impacts associated with the following thresholds: 4.2.5 under Section 4.2, Air Quality; 4.3.2, 4.3.3, and 4.3.6 under Section 4.3, Biological Resources; 4.4.1, 4.4.2, and 4.4.4 under Section 4.4, Cultural and Paleontological Resources; 4.5.1 (iv) and 4.5.5 under Section 4.5, Geology and Soils; 4.7.5, 4.7.7, and 4.7.8 under Section 4.7, Hazards and Hazardous Materials; 4.8.7 under Section 4.8, Hydrology and Water Quality; 4.9.1 and 4.9.3 under Section 4.9, Land Use and Planning; 4.11.1, under Section 4.1, Recreation; 4.12.3 and 4.12.4 under Section 4.12, Transportation and Traffic; and 4.13.10 under Section 4.13, Utilities and Service Systems. No new information identifying a change in the level of impacts was discovered during the scoping process. As a result, these thresholds are not considered further in the analyses of the potential impacts of the proposed Project.

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
4.1: AESTHETICS		
<p>Threshold 4.1.1: Have a substantial adverse effect on a scenic vista.</p> <p>Less than Significant Impact. There are no locally designated scenic vistas on or surrounding the Project site but expansive ocean views from public right-of-ways can generally be considered to have aesthetic value. The proposed pool complex would be located generally on the same building footprint of the former Belmont Pool facility. The proposed placement and alignment of the Bubble would allow for increased views of the coastline that were previously blocked by the former Belmont Pool structure. Additionally, the curved elliptical shape of the Bubble reduces the structural scale and mass, when compared to a traditional rectangular building, by eliminating the corners of the building, allowing for an increase in viewable area. Therefore, the change in the building alignment on the site, in combination with the reduced structural mass from the Bubble’s elliptical design, would not result in a substantial adverse effect on scenic vistas and a less than significant impact would occur. No mitigation is required.</p>	No mitigation is required.	Less than Significant.
<p>Threshold 4.1.2: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State-designated scenic highway.</p> <p>Less than Significant Impact. While Ocean Boulevard adjacent to the Project site is not a designated State Highway, the Scenic Routes Element of the City of Long Beach (City) General Plan has identified the portion of Ocean Boulevard adjacent to the Project site as a designated scenic route associated with the Recreational</p>	No mitigation is required.	Less than Significant.

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>Scenic Route. While implementation of the proposed Project would modify the views to and from the Project site by replacing the former Belmont Pool facility with a new pool complex, the proposed Project would not substantially alter the existing character of the surrounding area. Motorists along Ocean Boulevard would experience increased views of the coastline following implementation of the proposed Project. Therefore, potential impacts of the proposed Project on the Recreational Scenic Route would be less than significant, and no mitigation is required.</p>		
<p>Threshold 4.1.3: Substantially degrade the existing visual character or quality of the site and its surroundings.</p> <p>Less than Significant Impact with Mitigation Incorporated. Construction of the proposed Project would involve on-site grading and construction activities that would be visible to travelers along Ocean Boulevard and other adjacent roadways. Construction activities for the proposed Project would be short-term and temporary fencing would be placed along the perimeter of the site to screen construction activities from the street level. Construction fencing could serve as a potential target for graffiti if not appropriately monitored. Mitigation Measure 4.1.1, requiring the maintenance of the Project site fencing, would ensure that impacts associated with unwanted debris and graffiti would be less than significant.</p> <p>Operation of the proposed Project would alter the existing visual character of the site because the design of the proposed structure would be dramatically different than the former Belmont Pool</p>	<p>Mitigation Measure 4.1.1: Maintenance of Construction Barriers. Prior to issuance of any construction permits, the Development Services Director, or designee, shall verify that construction plans include the following note: During construction, the Construction Contractor shall ensure, through appropriate postings and daily visual inspections, that no unauthorized materials are posted on any temporary construction barriers or temporary pedestrian walkways, and that any such temporary barriers and walkways are maintained in a visually attractive manner. In the event that unauthorized materials or markings are discovered on any temporary construction barrier or temporary pedestrian walkway, the Construction Contractor shall remove such items within 48 hours.</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>facility. However, the proposed Project design has a comparable mass, scale, and height and would also be aligned to provide for increased coastal views. Additionally, the proposed Project would replace one large recreational pool complex with another recreational pool complex and although the design would be different, the visual character of the Project site would not be substantially degraded with the implementation of the proposed Project. Project impacts would be less than significant impacts, and no mitigation is required.</p>		
<p>Threshold 4.1.4: Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.</p> <p>Less than Significant Impact. Lighting required during the construction period could generate light spillover in the vicinity of the proposed Project site. However, construction activities would occur only during daylight hours and any construction-related illumination would be used for safety and security purposes only (in compliance with Long Beach Municipal Code (LBMC) light intensity requirements) and would occur only for the duration required for the temporary construction process. Minor glare from sunlight on construction equipment and vehicle windshields is not anticipated to impact visibility in the area because the construction site would be fenced and shielded from pedestrian views and passenger vehicle views. In addition, construction vehicles would not be operating at night and thus would not create nighttime sources of glare. Therefore, construction of the proposed Project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area, and light</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>impacts associated with construction would be less than significant.</p> <p>The proposed Project would include the installation of new lighting for the pool, which would replace the existing lighting for the outdoor pools, park, and associated street lights. Additionally, nighttime lights are necessary for the safety and security of the visitors and employees on site and along the park pathways, but outdoor light fixtures would be shielded and directed in compliance with the existing LBMC. The Project signage would be illuminated by light-emitting diode lights in conformance with the existing LBMC, and would be required to obtain Site Plan Review and approval. The Bubble shell is made from a low reflective. While the proposed Project’s building accents may include metal or other highly polished surfaces around building entrances, such accents would be small relative to the size of the facade and would be partially blocked by landscaping buffers. Additionally, daytime glare and nighttime glare would be reduced due to the obstruction from the proposed landscaping in the interior portions of the Project site. The nighttime glare produced by the signage, exterior lighting, and vehicular headlights would be similar to the existing nighttime glare produced by the surrounding residential and commercial uses and would not result in enough glare to be considered substantial or affect nighttime views. In addition, the interior lighting of the Bubble would not be considered a glare-producing light because the structure would be illuminated from the inside, which would produce a glow and not a direct light. Additionally, the lighting of the Bubble structure would be limited to end at 10:00 p.m., the operational hours of the facility, and</p>		

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>would not be lit throughout the night. Therefore, impacts due to light and glare generation and interference with the performance of an off-site activity or adverse effects on views would be less than significant during operation of the proposed Project, and no mitigation is required.</p>		
<p>Cumulative Aesthetic Impacts.</p> <p>Less than Significant Impact. The proposed Project is located in an urban area with a number of existing sources of light and glare. Because the proposed Project would replace the former Belmont Pool with a modernized pool complex, light and glare as a result of the proposed Project would be consistent with the baseline conditions in the area and would not impact views in the area. The potential aesthetic impacts to scenic vistas, scenic resources, and existing visual character were evaluated and found to be less than significant. Therefore, the contribution of the proposed Project to potential cumulative visual/aesthetic impacts in the study area is considered less than cumulatively considerable.</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>
<p>4.2: AIR QUALITY</p>		
<p>Threshold 4.2.1: Conflict with or obstruct implementation of the applicable air quality plan.</p> <p>Less than Significant Impact. Emissions associated with the proposed Project are not anticipated to exceed the General Plan projections or contribute to air quality deterioration beyond South Coast Air Quality Management District (SCAQMD) thresholds. The proposed Project is consistent with the site’s current General Plan land use designation. Therefore, since the Air Quality Management Plan (AQMP) is based on local General Plans and the</p>	<p>No mitigation is required.</p> <p>Standard Condition 4.2.1: Construction Emissions. The proposed Project is required to comply with regional rules that assist in reducing short-term air pollutant emissions. The South Coast Air Quality Management District (SCAQMD) Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>proposed Project is consistent with the General Plan, the proposed Project would not conflict with the AQMP. However, the proposed Project would be required to adhere to Standard Conditions 4.2.1 and 4.2.2, which include a variety of measures aimed at controlling dust during Project construction, consistent with the General Plan Air Quality Element Policy 6.1. In addition, the proposed Project would be built to meet Leadership in Energy and Environmental Design (LEED) Gold (or higher) certification standards and would implement a variety of conservation and sustainability features aimed at reducing energy consumption, consistent with General Plan policies. Furthermore, the proposed Project would be compliant with all Mandatory Measures outlined in the California Green Building Standards Code (Cal Green Code) aimed at the improvement of air quality. Therefore, because the proposed Project would be consistent with the City’s General Plan Air Quality Element, the Cal Green Code, and the Final 2012 AQMP, the proposed Project would have a less than significant impact related to conflict with applicable goals and policies, and no mitigation would be required.</p>	<p>nuisance off site. Applicable dust suppression techniques from Rules 403 and 402 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the particulate matter less than 10 microns in diameter [PM₁₀] component).</p> <p>Standard Condition 4.2.2: Applicable Rules 403 and 402 Measures. The Project construction contractor shall develop and implement dust-control methods that shall achieve this control level in a SCAQMD Rule 403 dust control plan, designate personnel to monitor the dust control program, and order increased watering, as necessary, to ensure a 55 percent control level. Those duties shall include holiday and weekend periods when work may not be in progress. Additional control measures to reduce fugitive dust shall include, but are not limited to, the following:</p> <ul style="list-style-type: none"> • Apply water twice daily, or nontoxic soil stabilizers according to manufacturers’ specifications, to all unpaved parking or staging areas or unpaved road surfaces or as needed to areas where soil is disturbed. • Use low-sulfur fuel for stationary construction equipment. This is required by SCAQMD Rules 431.1 and 431.2. • During earthmoving or excavation operations, fugitive dust emissions shall be controlled by regular watering or other dust-preventive measures using the following procedures: <ul style="list-style-type: none"> ○ All material excavated shall be sufficiently watered to prevent excessive amounts of dust. Watering, with complete coverage, shall occur at least twice daily, preferably in the late morning and after work is done for 	

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
	<p>the day.</p> <ul style="list-style-type: none"> ○ All earthmoving or excavation activities shall cease during periods of high winds (i.e., winds greater than 20 miles per hour [mph] averaged over 1 hour). ○ All material transported off site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust. ○ The area disturbed by earthmoving or excavation operations shall be minimized at all times. ● After earthmoving or excavation operations, fugitive dust emissions shall be controlled using the following measures: <ul style="list-style-type: none"> ○ Portions of the construction area to remain inactive longer than a period of 3 months shall be revegetated and watered until cover is grown. ○ All active portions of the construction site shall be watered to prevent excessive amounts of dust. ● At all times, fugitive dust emissions shall be controlled using the following procedures: <ul style="list-style-type: none"> ○ On-site vehicle speed shall be limited to 15 mph. ○ Road improvements shall be paved as soon as feasible, watered periodically, or chemically stabilized. ● At all times during the construction phase, ozone precursor emissions from mobile equipment shall be controlled using the following procedures: <ul style="list-style-type: none"> ○ Equipment engines shall be maintained in good condition and in proper tune according to manufacturers' specifications. ○ On-site mobile equipment shall not be left idling for a period longer than 60 seconds. 	

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
	<ul style="list-style-type: none"> Outdoor storage piles of construction materials shall be kept covered, watered, or otherwise chemically stabilized with a chemical wetting agent to minimize fugitive dust emissions and wind erosion. 	
<p>Threshold 4.2.2: Violate any air quality standard or contribute to an existing or projected air quality violation.</p> <p>Less than Significant Impact. Construction Emissions. The use of construction equipment on the site would result in localized exhaust emissions. However, with implementation of Standard Conditions 4.2.1 and 4.2.2., the proposed Project would be required to adhere to a variety of measures aimed at controlling dust during Project construction. Therefore, with incorporation of these SCAQMD Rules and emission control measures, construction emissions would not exceed any of SCAQMD's thresholds.</p> <p>Operation Emissions. The proposed Project's emissions (from both stationary sources and vehicular sources) would not exceed SCAQMD daily emissions thresholds. Therefore, the long-term air quality impacts of the proposed Project would be less than significant, and no mitigation is required.</p>	<p>No mitigation is required.</p> <p>Refer to Standard Conditions 4.2.1 and 4.2.2, above.</p>	<p>Less than Significant.</p>
<p>Threshold 4.2.3: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).</p> <p>Less than Significant Impact. The projected construction,</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>operational, and localized significance threshold (LST) emissions of criteria pollutants as a result of the proposed Project are expected to be below the emissions thresholds established for the region. Cumulative emissions are part of the emission inventory included in the AQMP for the Project area. Therefore, there would be no cumulatively considerable net increase of the criteria pollutants that are in “nonattainment” status in the South Coast Air Basin, and Project impacts would have a less than significant impact; no mitigation is required.</p>		
<p>Threshold 4.2.4: Expose sensitive receptors to substantial pollutant concentrations.</p> <p>Less than Significant Impact. The sensitive land uses within the vicinity of the proposed Project include the existing Belmont Shores Children’s Center (Preschool/Child Care) facility located within 25 feet of the northern boundary of the Project site, residences approximately 80 feet (ft) to the west, and residences across East Ocean Boulevard approximately 100 ft to the northeast of the Project site. Fugitive dust emissions would occur during construction of the proposed Project; however, the Project would be required to comply with SCAQMD Standard Conditions and Rule 403, as specified in Standard Conditions 4.2.1 and 4.2.2. Therefore, with implementation of Standard Conditions 4.2.1 and 4.2.2, no significant impacts to sensitive receptors related to fugitive dust during Project construction would occur.</p> <p>Carbon monoxide (CO) and nitrogen oxides (NO_x) emissions during construction would not exceed SCAQMD thresholds. Therefore, the Project construction would result in less than</p>	<p>No mitigation is required.</p> <p>Refer to Standard Conditions 4.2.1 and 4.2.2, above.</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>significant air quality impacts related to CO and NO_x emissions, and no mitigation is required.</p> <p>Long-term operational criteria pollutant emission impacts are those associated with stationary and mobile sources. The maximum emissions from Project operation would not cause or contribute to an exceedance of applicable federal or State ambient air quality standards. Therefore, the long-term operation of the Project would result in less than significant air quality impacts related to CO, NO_x, or other criteria pollutants and would not expose sensitive receptors to substantial pollutant concentrations, and no mitigation is required.</p> <p>Long-Term Microscale (CO Hot Spot) Analysis. Because the intersections evaluated for the proposed Project would not be congested and the Project area has low background CO levels, the likelihood for CO concentrations to reach unhealthful levels is low. Therefore, the proposed Project would not have a significant impact on local air quality for CO, and no mitigation measures are required.</p>		
<p>Cumulative Air Quality Impacts.</p> <p>Less than Significant Impact. The proposed Project would not result in significant operational air quality impacts, contribute to an ozone (O₃) exceedance at a nearby monitoring station, cause the area to be in noncompliance with the AQMP, or result in a significant health risk for any of the analyzed pollutants. As described further in this table in Section 4.12, Transportation and Traffic, there would not be a significant cumulative traffic impact,</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>and so there would not be a cumulative traffic emissions impact. Therefore, the proposed Project’s air quality emissions, when considered in combination with the cumulative projects within the Project vicinity, would be incremental and would be considered less than cumulatively considerable.</p>		
4.3: BIOLOGICAL RESOURCES		
<p>Threshold 4.3.1: Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.</p> <p>Less than Significant Impact. No sensitive natural community or special-status plant species were identified on the Project site, and no designated critical habitat is located in the Project Site. Although the on-site vegetation is nonnative, Allen’s hummingbirds were observed foraging on the Project site. However, bird species known to be utilizing the site, including Allen’s hummingbird, would be able to relocate to other hunting and foraging habitats once the Project is implemented. The loss of disturbed nonnative habitat and the associated reduction of locally common wildlife populations are not considered a significant impact. The removal of on-site vegetation is not expected to have a significant adverse effect on candidate, sensitive, or special-status species, as defined by the California Department of Fish and Wildlife (CDFW) or the United States Fish and Wildlife Service (USFWS). Therefore, any impacts to sensitive or special-status species would be less than significant, and no mitigation is</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>required.</p> <p>Threshold 4.3.4: Interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.</p> <p>Less than Significant Impact with Mitigation Incorporated. The Project site is developed and located in an urban area subject to frequent intense human activity and does not function as a wildlife movement corridor. However, because of the presence of several mature ornamental trees, implementation of the proposed Project may interfere with native resident or migratory bird species. A total of 30 trees would be removed or relocated. In addition, noise and activities during construction could cause the potential abandonment of nests by migratory birds and may result in some temporary disruptions to the roosting activities. Implementation of Mitigation Measure 4.3.1 would be required to ensure that potential impacts to migratory birds are reduced to a less than significant level. Construction of the pool facilities and renovations to the passive park areas has the potential to cause a direct loss of nesting trees or the abandonment of nests. However, the bird species present in the Project area are currently coexisting with pool and park users and are accustomed to human intrusion and noise and are anticipated to be able to reestablish to the relocated trees and adapt to the additional trees installed as a part of the proposed Project. Therefore, long-term operation of the proposed Project is anticipated to have less than significant impacts on nesting and/or roosting birds.</p>	<p>Mitigation Measure 4.3.1: Migratory Bird Treaty Act. Tree and vegetation removal shall be restricted to outside the likely active nesting season (January 15 through September 1) for those bird species present or potentially occurring within the proposed Project area. That time period is inclusive of most other birds' nesting periods, thus maximizing avoidance of impacts to any nesting birds. If construction is proposed between January 15 and September 1, a qualified biologist familiar with local avian species and the requirements of the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code shall conduct a preconstruction survey for nesting birds no more than 3 days prior to construction. The survey shall include the entire area that will be disturbed. The results of the survey shall be recorded in a memorandum and submitted to the City of Long Beach (City) Parks, Recreation, and Marine Director within 48 hours. If the survey is positive, and the nesting species are subject to the MBTA or the California Fish and Game Code, the memorandum shall be submitted to the California Department of Fish and Wildlife (CDFW) to determine appropriate action. If nesting birds are present, a qualified biologist shall be retained to monitor the site during initial vegetation clearing and grading, as well as during other activities that would have the potential to disrupt nesting behavior. The monitor shall be empowered by the City to halt construction work in the vicinity of the nesting birds if the monitor believes the nest is at risk of failure or the birds are excessively disturbed.</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>No bats were observed emerging from the former Belmont Pool building complex at any time during the emergence survey, no bats were observed flying or foraging in the vicinity, and no bats were detected with acoustic equipment. Therefore, no impacts to day-roosting bats or bat colonies on the Project site or in the vicinity of the Project site are expect to occur.</p>		
<p>Threshold 4.3.5: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.</p> <p>Less than Significant Impact with Mitigation Incorporated. The proposed Project would be constructed within an existing developed area that contains ornamental landscaping and nonnative vegetation. The proposed Project would comply with the Tidelands Area Tree Trimming policy by restricting tree trimming within 300 feet of any tree containing an active nest or nesting activity during the period from January 15 through September 1.</p> <p>Construction of the pool facilities as currently planned would result in removal or relocation of 30 trees. In accordance with the City of Long Beach (City) Municipal Code, Chapter 14.28, a ministerial permit from the Public Works Director would be required before the removal of any trees on City-owned property. A tree removal permit would be obtained prior to any grading or construction activities. The City’s Tree Maintenance Policy requires a 1:1 replacement ratio and payment of a fee that is equivalent to the cost of a City-approved 15-gallon tree. Therefore, with implementation of Mitigation Measure 4.3.2, impacts related</p>	<p>Mitigation Measure 4.3.2: Local Tree Removal Ordinances. Prior to the start of any demolition or construction activities, the City of Long Beach (City) Parks, Recreation, and Marine Director, or designee, shall obtain a tree removal permit from the City’s Public Works Director. A City-approved Construction Plan shall be submitted with the permit to remove tree(s). The City-approved Plan shall show that the existing City (parkway) tree has a direct impact on the design and function of the proposed Project. The City shall incur all removal costs, including site cleanup, make any necessary repair of hardscape damage, and replace the tree. The removed tree shall be replaced with an approved 15-gallon tree and payment of a fee that is equivalent to a City-approved 15-gallon tree.</p>	<p>Less than Significant.</p>

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
to the City’s tree protection ordinance would be reduced to a less than significant level.		
<p>Cumulative Biological Resource Impacts. The proposed Project has a limited potential to result in a cumulative impact to nesting migratory bird species or biological resources. However, Mitigation Measures 4.3.1 and 4.3.2, requiring avoidance of construction during nesting season and replacement of removed trees at a 1:1 ratio, would reduce potential impacts to migratory bird species to a less than significant level. Therefore, overall adverse impacts to nesting migratory bird species would not be cumulatively significant.</p> <p>The Project site does not contain any native habitat, and is in an area with substantial urban development and limited native habitat. Therefore, loss of potential habitat on the Project site would not be a substantial impact. As a result, when considered with the potential effects of other development in this part of the City on biological resources, the proposed Project would not contribute appreciably to cumulative adverse impacts on biological resources. Therefore, the contribution of the proposed Project to cumulative adverse impacts on biological resources would be considered less than cumulatively considerable.</p>	Refer to Mitigation Measures 4.3.1 and 4.3.2, above.	Less than Significant.
4.4: CULTURAL AND PALEONTOLOGICAL RESOURCES		
<p>Threshold 4.5.3: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.</p> <p>Less than Significant Impact with Mitigation Incorporated. During Project construction, there is a potential for significant fossil remains to be encountered during grading activities at depths</p>	<p>Mitigation Measure 4.4.1: Paleontological Resources Impact Mitigation Program. Prior to commencement of any grading or excavation activity on site, the City of Long Beach (City) Development Services Director, or designee, shall verify that a paleontologist has been retained on an on-call basis for all excavation from the surface to depths of 23 feet (ft) below the</p>	Less than Significant.

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>of 23 feet (ft) or greater. Mitigation Measure 4.4.1 requires a qualified paleontologist to be retained to monitor grading activities. Implementation of Mitigation Measure 4.4.1 would ensure that impacts to paleontological resources are reduced to below a less than significant level.</p>	<p>surface. Once a depth of 23 ft is reached, the paleontologist shall visit the site and determine if there is a potential for the sediments at this depth to contain paleontological resources.</p> <p>A paleontologist shall not be required on site if excavation is only occurring in depths of less than 23 ft, unless there are discoveries at shallower depths that warrant the presence of a paleontological monitor. In the event that there are any unanticipated discoveries, the on-call paleontologist shall be called to the site to assess the find for significance, and if necessary, prepare a Paleontological Resources Impact Mitigation Program (PRIMP) as outlined below.</p> <p>If excavation will extend deeper than 23 ft, exclusive of pile-driving and vibro-replacement soil stabilization techniques, the paleontologist shall prepare a PRIMP for the proposed Project. The PRIMP should be consistent with the guidelines of the Society of Vertebrate Paleontologists (SVP, 1995 and 2010) and shall include but not be limited to the following:</p> <ul style="list-style-type: none"> • Attendance at the pre-grade conference or weekly tailgate meeting if the PRIMP is initiated after the commencement of grading, in order to explain the mitigation measures associated with the Project. • During construction excavation, a qualified vertebrate paleontological monitor shall initially be present on a full-time basis whenever excavation shall occur within the sediments that have a high paleontological sensitivity rating. Based on the significance of any recovered specimens, the qualified paleontologist may set up conditions that shall allow 	

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
	<p>for monitoring to be scaled back to part-time as the Project progresses. However, if significant fossils begin to be recovered after monitoring has been scaled back, conditions shall also be specified that would allow increased monitoring as necessary. The monitor shall be equipped to salvage fossils and/or matrix samples as they are unearthed in order to avoid construction delays. The monitor shall be empowered to temporarily halt or divert equipment in the area of the find in order to allow removal of abundant or large specimens.</p> <ul style="list-style-type: none"> • The underlying sediments may contain abundant fossil remains that can only be recovered by a screening and picking matrix; therefore, these sediments shall occasionally be spot-screened through 1/8 to 1/20-inch mesh screens to determine whether microfossils exist. If microfossils are encountered, additional sediment samples (up to 6,000 pounds) shall be collected and processed through 1/20-inch mesh screens to recover additional fossils. Processing of large bulk samples is best accomplished at a designated location within the Project that shall be accessible throughout the Project duration but shall also be away from any proposed cut or fill areas. Processing is usually completed concurrently with construction, with the intent to have all processing completed before, or just after, Project completion. A small corner of a staging or equipment parking area is an ideal location. If water is not available, the location should be accessible for a water truck to occasionally fill containers with water. • Preparation of recovered specimens to a point of identification and permanent preservation. This includes the washing and picking of mass samples to recover small invertebrate and 	

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
	<p>vertebrate fossils and the removal of surplus sediment from around larger specimens to reduce the volume of storage for the repository and the storage cost.</p> <ul style="list-style-type: none"> • Identification and curation of specimens into a museum repository with permanent retrievable storage, such as the Natural History Museum of Los Angeles County (LACM). • Preparation of a report of findings with an appended itemized inventory of specimens. When submitted to the City Development Services Director, or designee, the report and inventory would signify completion of the program to mitigate impacts to paleontological resources. 	
<p>Cumulative Cultural Resource Impacts.</p> <p>Less than Significant Impact with Mitigation Incorporated. Future development in the City of Long Beach (City) could include excavation and grading that could potentially impact archaeological and paleontological resources and human remains. The cumulative effect of the proposed Project would be the continued loss of these resources. The proposed Project, in conjunction with other development in the City, has the potential to cumulatively impact archaeological and paleontological resources; however, each development proposal received by the City undergoes environmental review pursuant to the California Environmental Quality Act (CEQA). If there is a potential for significant impacts to archaeological or paleontological resources, an investigation would be required to determine the nature and extent of the resources and to identify appropriate mitigation measures. If subsurface cultural resources are assessed and/or protected as they are discovered, impacts to these resources would</p>	<p>Refer to Mitigation Measure 4.4.1, above.</p>	<p>Less than Significant.</p>

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>be less than significant. In addition, applicable City ordinances and General Plan policies would be implemented as appropriate to reduce the effects of additional development within the City.</p> <p>Mitigation Measure 4.4.1 would be implemented during construction of the proposed Project to reduce potential Project impacts by ensuring avoidance, evaluation, and, as applicable, scientific recovery and study of any resources encountered. Therefore, with implementation of Mitigation Measures 4.4.1, the contribution of the proposed Project to the cumulative loss of known and unknown cultural resources throughout the City would be considered less than cumulatively considerable.</p>		
<p>4.5: GEOLOGY AND SOILS</p>		
<p>Threshold 4.5.1: Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <p>i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist, or based on other substantial evidence of a known fault (refer to DM&G Pub. 42).</p> <p>Less than Significant Impact. According to the Geotechnical Evaluations prepared for the proposed Project, there are no known active fault or fault traces crossing the site. The Project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone, nor is it currently identified by the regulatory community as being located within zones of either primary or secondary co-seismic surface deformation (e.g., pressure ridges,</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>escarpments, or fissures). Therefore, the site is not expected to experience primary surface fault rupture or related ground deformation, and no mitigation is required.</p>		
<p>Threshold 4.5.1: Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <p>ii) Strong seismic ground shaking.</p> <p>Less than Significant Impact with Mitigation Incorporated. The closest mapped active faults to the Project site are the Newport-Inglewood and Palos Verdes Fault Zones. Because the site is located approximately 1.5 miles northeast of the Newport-Inglewood Structural Zone, significant ground shaking or secondary seismic ground deformation effects could occur at the site should a major seismic event occur along the Newport-Inglewood Structural Zone. As with most areas in Southern California, damage to the proposed Belmont Pool facilities and infrastructure could be expected as a result of significant ground shaking during a strong seismic event in the region. However, the proposed Project structures would be designed and built in conformance with the most current adopted California Building Code (CBC), including seismic safety standards. Mitigation Measure 4.5.1 requires the City to comply with the recommendations of the Geotechnical Evaluations and the most current CBC, which stipulates appropriate seismic design provisions that shall be implemented with Project design and construction. With implementation of Mitigation Measure 4.5.1, potential Project impacts related to seismic ground shaking would</p>	<p>Mitigation Measure 4.5.1: Conformance with the Project Geotechnical Studies. All grading operations and construction shall be conducted in conformance with the recommendations included in the Report of Preliminary Geotechnical Investigation for the Proposed Belmont Plaza Olympic Pool Revitalization Project, prepared by MACTEC (April 14, 2009); the Geotechnical Investigation for the Temporary Myrtha Pool and Associated Improvements, Belmont Plaza Revitalization, prepared by GMU Geotechnical, Inc. (April 3, 2013); the Preliminary Geotechnical Report for the Belmont Plaza Pool Rebuild-Revitalization prepared by AESCO (April 24, 2014); and Soil Corrosivity Evaluation for the Belmont Plaza Pool Facility Rebuild/Revitalization Project, prepared by HDR Schiff (April 23, 2014), which together are referred to as the Geotechnical Evaluations. Design, grading, and construction shall be performed in accordance with the requirements of the City of Long Beach (City) Municipal Code (Title 18) and the California Building Code (CBC) applicable at the time of grading, appropriate local grading regulations, and the requirements of the Project geotechnical consultant as summarized in a final written report, subject to review and approval by the Development Services Director, or designee, prior to commencement of grading activities.</p> <p>Specific requirements in the Final Geotechnical Report shall address:</p>	<p>Less than Significant.</p>

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>be reduced to a less than significant level.</p>	<ol style="list-style-type: none"> 1. Seismic design considerations and requirements for structures and nonstructural components permanently attached to structures 2. Foundations including ground improvements (deep soil mixing and stone columns) and shallow foundation design 3. Earthwork, including site preparation for structural areas (building pad) and sidewalks, pavements, and other flatwork areas; fill material; temporary excavations; and trench backfill 4. Liquefaction 5. Site drainage 6. Slabs-on-grade and pavements 7. Retaining walls <p>Additional site testing and final design evaluation shall be conducted by the Project geotechnical consultant to refine and enhance these requirements, if necessary. The City shall require the Project geotechnical consultant to assess whether the requirements in that report need to be modified or refined to address any changes in the Project features that occur prior to the start of grading. If the Project geotechnical consultant identifies modifications or refinements to the requirements, the City shall require appropriate changes to the final Project design and specifications.</p> <p>Grading plan review shall also be conducted by the City’s Development Services Director, or designee, prior to the start of grading to verify that the requirements developed during the geotechnical design evaluation have been appropriately incorporated into the Project plans. Design, grading, and construction shall be conducted in accordance with the</p>	

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
	specifications of the Project geotechnical consultant as summarized in a final report based on the CBC applicable at the time of grading and building and the City Building Code. On-site inspection during grading shall be conducted by the Project geotechnical consultant and the City Building Official to ensure compliance with geotechnical specifications as incorporated into Project plans.	
<p>Threshold 4.5.1: Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</p> <p>iii) Seismic-related ground failure, including liquefaction.</p> <p>Less than Significant Impact with Mitigation Incorporated. The Project site is located within a Liquefaction Hazard Zone as designated by the California Geological Survey (CGS). The Preliminary Geotechnical Report concluded that the proposed Project would experience a high liquefaction or lateral spreading potential due to its location, historical high groundwater levels, and the presence of soil conditions common to liquefaction areas. Compliance with applicable building codes and the incorporation of the design recommendations in the final geotechnical report into final design plans would reduce potential impacts related to liquefaction to a less than significant level. With implementation of Mitigation Measure 4.5.1, potential Project impacts related to liquefaction would be reduced to a less than significant level. See also response to Threshold 4.5.3 (Lateral Spreading and Liquefaction), below.</p>	Refer to Mitigation Measure 4.5.1, above.	Less than Significant.
<p>Threshold 4.5.2: Result in substantial soil erosion or the loss of topsoil.</p>	Refer to Mitigation Measure 4.8.1 in Section 4.8, Hydrology and Water Quality, below.	Less than Significant.

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>Less than Significant Impact with Mitigation Incorporated. During construction of the proposed Project, there is a potential for disruption of the soils on the entire Project site. Construction activities could potentially result in erosion and loss of topsoil. However, all excavation, trenching, and compaction activities would be performed under the observation of a qualified engineer and the Project would be required to adhere to all applicable construction standards with regard to erosion control. Standard Condition 4.2.2 (Applicable Rules 403 and 402 Measures) (refer to Section 4.2, Air Quality) and Mitigation Measure 4.8.1 (Construction General Permit) (refer to Section 4.8, Hydrology and Water Quality) would be implemented to reduce potential significant impacts related to soil erosion. Therefore, with implementation of Standard Condition 4.2.2 and Mitigation Measure 4.8.1, impacts would be considered less than significant.</p>	<p>Refer to Standard Condition 4.2.2 in Section 4.2, Air Quality, above.</p>	
<p>Threshold 4.5.3: Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.</p> <p>Landslides and Unstable Slopes. Less than Significant Impact with Mitigation Incorporated. Because the site is located in a relatively flat area, landslides or other forms of natural slope instability do not represent a significant hazard to the Project. In addition, the site is not within a State-designated hazard zone for Earthquake-Induced Landsliding. Therefore, potential impacts related to landslides would be less than significant, and no mitigation is required.</p>	<p>Refer to Mitigation Measure 4.5.1, above.</p> <p>Mitigation Measure 4.5.2: Corrosive Soils. Prior to issuance of any building permits, the City of Long Beach (City) Development Services Director, or designee, shall verify that structural design conforms to the requirements of the geotechnical study with regard to the protection of ferrous metals and copper that will come into contact with on-site soil. In addition, on-site inspections shall be conducted during construction by the Project geotechnical consultant and/or City Building Official to ensure compliance with geotechnical specifications as incorporated into Project plans.</p> <p>The measures specified in the geotechnical study for steel pipes,</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>Although no indications of landslide activity or gross slope instability were observed at the Project site, grading activities during construction would produce temporary construction slopes in some areas. Mitigation Measure 4.5.1 requires that planned grading and shoring conform to the recommendations of the Preliminary Geotechnical Investigation (2014), which contains specific recommendations for addressing potential slope instability during construction. With implementation of these recommendations in accordance with Mitigation Measure 4.5.1, potential impacts related to slope instability during construction would be reduced to a less than significant level.</p> <p>Lateral Spreading and Liquefaction. Less than Significant Impact with Mitigation Incorporated. The Project site is located within a Liquefaction Hazard Zone as designated by CGS. The Preliminary Geotechnical Report concluded that the proposed Project would experience a high liquefaction or lateral spreading potential due to its location, historical high groundwater levels, and the presence of soil conditions common to liquefaction areas. Compliance with applicable building codes and the incorporation of the design recommendations in the final geotechnical report into final design plans would reduce potential impacts related to liquefaction to a less than significant level. With implementation of Mitigation Measure 4.5.1, potential Project impacts related to liquefaction would be reduced to a less than significant level.</p> <p>The Geotechnical Evaluations determined that several feet of</p>	<p>iron pipes, copper tubing, plastic and vitrified clay pipe, other pipes, concrete, post tensioning slabs, concrete piles, and steel piles shall be incorporated into the structural design and Project plans where ferrous metals (e.g., iron or steel) and/or copper may come into contact with on-site soils.</p>	

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>lateral spreading toward the Pacific Ocean could occur in the event of earthquake ground motions. However, the Geotechnical Evaluations concluded that the proposed Project is feasible with implementation of the final engineering design recommendations and compliance with the most current CBC. Therefore, Mitigation Measure 4.5.1 requiring compliance with the recommendations contained in the Geotechnical Evaluations and the final geotechnical report would ensure that potential impacts related to lateral spreading are reduced to less than significant levels.</p> <p>Subsidence. Less than Significant Impact. Water injection was begun in 1958 to repressurize the former oil field and the area has since been stabilized (MACTEC 2009) and, therefore, is not expected to result in subsidence on the Project site. As a result, subsidence-related impacts are considered to be less than significant, and no mitigation is required.</p> <p>Corrosive Soils. Less than Significant Impact with Mitigation Incorporated. Corrosive soils could potentially create a significant hazard to the Project by weakening the structural integrity of the concrete and metal used to construct the building and potentially lead to structural instability.</p> <p>Laboratory testing indicates that on-site soils contain a negligible concentration of sulfates and severe concentrations of chlorides. Thus, the on-site soils should be considered severely corrosive to ferrous metals. Mitigation Measure 4.5.2 requires protection of</p>		

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>ferrous metals and copper against corrosion. Corrosion protection may include, but is not limited to, sacrificial metal, the use of protective coatings, and/or cathodic protection. With implementation of Mitigation Measure 4.5.2, potential impacts related to corrosive soils would be reduced to a less than significant level.</p>		
<p>Threshold 4.5.4: Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property.</p> <p>Less than Significant Impact. The on-site granular soil depths of at least 8 feet are non-expansive, while the underlying clay can be classified as having a moderate expansion potential based on the assessment of the soil classifications provided in the cone penetration test logs and results of expansion index testing contained in the Geotechnical Evaluations. A non-expansive potential should, therefore, be assumed for planning purposes for the proposed structures. Impacts related to expansive soils would be less than significant, and no mitigation is required.</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>
<p>Cumulative Geology and Soil Impacts.</p> <p>Less than Significant Impact with Mitigation Incorporated. The Project site is in a fully built out area in which new development is infrequent. Any new development projects would also be required to meet similar engineering standards to reduce their own potential geologic impacts to a less than significant level. In addition, there are no other known activities or projects with activities that would affect the geology and soils at the Project site (e.g., projects requiring significant structural blasting or drilling,</p>	<p>Refer to Mitigation Measures 4.5.1 and 4.5.2, above.</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>high vibration activities, or deep excavation).</p> <p>As discussed above, there are no geotechnical conditions on site that would prohibit construction, and no activities associated with the Project that would contribute to any cumulative geological effects (e.g., risk of ground failure, slope failure, or settlement problems) in the Project vicinity. Implementation of Mitigation Measure 4.5.1 ensures that the proposed Project complies with recommendations in the Geotechnical Evaluations and Mitigation Measure 4.5.2 requires protection of ferrous metals and copper against corrosion; adherence to these measures would ensure that the Project would have a less than significant impact on Geology and Soils. Therefore, with implementation of the proposed mitigation, the Project’s geological impacts are considered less than cumulatively considerable.</p>		
4.6: GREENHOUSE GAS EMISSIONS		
<p>Threshold 4.7.1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.</p> <p>Less than Significant Impact. During construction of the proposed Project, greenhouse gas emissions (GHGs) would be emitted through the operation of construction equipment and from worker and vendor vehicles, each of which typically use fossil-based fuels to operate. Construction emissions are typically amortized over 30 years when considering their contribution to global climate change (GCC); therefore, construction impacts are assessed as part of the long-term operation of the Project.</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>Long-term operation of the proposed Project would generate GHG emissions from area and mobile sources and indirect emissions from stationary sources associated with energy consumption. The proposed Project would produce an estimated 1,600 metric tons (MT) of carbon dioxide equivalent (CO₂e) per year above the existing condition. This does not include any credits for the Leadership in Energy and Environmental Design (LEED) certification Project features that would reduce energy use and, therefore, reduce GHG emissions from the Project. Even with the existing site emissions, the proposed Project would produce approximately 2,900 MT of CO₂e per year, which would not exceed the Tier 3 criterion of 3,000 MT of CO₂e per year for commercial/residential projects. Therefore, operational emissions would be below the screening threshold and Project operations would be considered to have a less than significant impact related to GHG emissions, and no mitigation is required.</p>		
<p>Threshold 4.7.2: Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.</p> <p>Less than Significant Impact. The proposed Project is estimated to produce approximately 1,600 MT of CO₂e per year over existing conditions, representing approximately 0.002 million metric tons (MMT) of CO₂e per year of the State’s reduction goals. Therefore, the proposed Project is not considered to result in GHG emission levels that would substantially conflict with implementation of the GHG reduction goals under Assembly Bill (AB) 32, Executive Order (EO) S-03-05, or other State regulations. The proposed Project would have a less than significant impact related to</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>potential conflicts with regulations outlined in the California Green Buildings Standard Code and GHG emissions reduction goals in AB 32. No mitigation is required.</p>		
<p>Cumulative Greenhouse Gas Emission Impacts.</p> <p>Less than Significant Impact. A project’s GHG emissions and the resulting significance of potential impacts are more properly assessed on a cumulative basis. Thus, the Project-specific analysis conducted in Thresholds 4.7.1 and 4.7.2 is essentially already a cumulative analysis because it takes into consideration Statewide GHG reduction targets and demonstrates that the proposed Project would be consistent with those targets.</p> <p>The proposed Project emphasizes energy efficiency and water conservation and would be consistent with the AB 32 goals for 2020; the proposed Project would not generate GHG emissions that exceed any applicable threshold of significance; and the proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. As a result, the proposed Project’s climate change impacts with regard to GHG emissions would not be considered cumulatively considerable because they would not contribute to GHG emissions that exceed the AB 32 Statewide goals.</p> <p>Additionally, the proposed Project’s long-term operational emissions would not exceed South Coast Air Quality Management District (SCAQMD) thresholds. The proposed Project would result in a GHG emission profile that would not exceed the Tier 3</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>critterion of 3,000 MT of CO₂e per year for commercial/residential projects, and is lower than the service population thresholds as allowed under Tier 4 analysis (4.8 MT of CO₂e per year per service population). Additionally, since climate change is a global issue, it is unlikely that the proposed Project would generate enough GHG emissions to influence GCC on its own. Because the proposed Project would be consistent with SCAQMD’s thresholds and because the Project’s impacts alone would not cause or significantly contribute to GCC, Project-related CO₂e emissions and their contribution to GCC impacts in the State would not make a significant contribution to cumulatively considerable GHG emission impacts. Therefore, the contribution of the proposed Project to potential cumulative GHG emission impacts in the City of Long Beach is considered less than cumulatively significant, and no mitigation is required.</p> <p>According to the Wave Uprush Study, wave run-up for the high 2060 and 2100 sea level rise scenarios (2.6 ft and 5.5 ft increase in sea level, respectively), would result in a run up elevation up to 8.2 ft and 10.4 ft (or greater) at the project site. However, the modeled scenario does not account for shore protection measures such as beach nourishment, storm berm construction, or other shore protection structures. Furthermore, because the main pool deck would be elevated 17 ft above mean sea level (amsl), the pool deck would be set 8.8 ft and 6.6 ft above the projected high water level in 2060 and 2100, respectively. Additional GHG reduction strategies implemented at the State, national, and international levels could reduce sea-level rise. Therefore, impacts related to climate change and sea level rise would not be cumulatively significant.</p>		

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
4.7: HAZARDS AND HAZARDOUS MATERIALS		
<p>Threshold 4.7.1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.</p> <p>Less than Significant Impact with Mitigation Incorporated. Construction activities would involve the use of potentially hazardous materials, including vehicle fuels, oils, and transmission fluids. All potentially hazardous materials would be contained, stored, and used in accordance with manufacturers’ instructions and handled in compliance with existing federal, State, and local regulations to ensure that the amounts of these materials present during construction would be limited and would not pose a significant adverse hazard to workers or the environment. Furthermore, the construction contractor would be required to implement standard best management practices regarding hazardous materials storage, handling, and disposal during construction in compliance with the State Construction General Permit to protect water quality (refer to Mitigation Measure 4.8.1 in Section 4.8, Hydrology and Water Quality). Any associated risk would be reduced to a level that is less than significant through compliance with these standards and regulations; thus, the limited use and storage of hazardous materials during construction of the proposed Project would not pose a significant hazard to the public or the environment. Accordingly, potential impacts associated with the routine transport, use, or disposal of potentially hazardous materials during construction of the proposed Project would be less than significant.</p>	<p>Mitigation Measure 4.7.1: Contingency Plan. Prior to issuance of any excavation or grading permits or activities, the City of Long Beach (City) Fire Department (LBFD), or designee, shall review and approve a contingency plan that addresses the potential to encounter on-site unknown hazards or hazardous substances during construction activities. The plan shall require that if construction workers encounter underground tanks, gases, odors, uncontained spills, or other unidentified substances, the contractor shall stop work, cordon off the affected area, and notify the LBFD. The LBFD responder shall determine the next steps regarding possible site evacuation, sampling, and disposal of the substance consistent with local, State, and federal regulations.</p> <p>Mitigation Measure 4.7.2: Predemolition Surveys. Prior to commencement of demolition and/or construction activities, the City LBFD, or designee, shall verify that predemolition surveys for asbestos-containing materials (ACMs) and lead (including sampling and analysis of all suspected building materials) shall be performed. All inspections, surveys, and analyses shall be performed by appropriately licensed and qualified individuals in accordance with applicable regulations (i.e., American Society for Testing and Materials E 1527-05, and 40 Code of Federal Regulations [CFR], Subchapter R, Toxic Substances Control Act [TSCA], Part 716). If the predemolition surveys do not find ACMs or lead-based pipes (LBPs), the inspectors shall provide documentation of the inspection and its results to the City LBFD, or designee, to confirm that no further abatement actions are required.</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>Based on the distance to known oil wells in the vicinity of the Project site, the potential presence of methane at the Project site is low. The low potential for encountering methane during excavation for the pool would be managed through compliance with a Contingency Plan that addresses the potential to encounter unknown hazards or hazardous substances during construction activities that would be approved by the City of Long Beach (City) Fire Department (LBFD). This Contingency Plan requirement is included as Mitigation Measure 4.7.1. Therefore, with implementation of Mitigation Measure 4.7.1, impacts related to the potential to encounter methane during construction would be less than significant.</p> <p>A site reconnaissance survey of the site revealed that asbestos-containing materials (ACMs) may be present in subsurface building materials at the site. While the majority of the buildings on the site were previously demolished under an emergency permit (Statutory Exemption SE14-01), several subsurface structures which may contain ACMs are currently present on the site. In addition to the potential to encounter ACMs in subsurface structures present on the site, the site reconnaissance survey indicated that the tile liners of the two outdoor pools to be demolished might contain lead. Mitigation Measure 4.7.2 requires the preparation of predemolition surveys to identify the presence of ACMs and lead in the existing on-site structures and outlines precautions to ensure the materials are properly removed. Therefore, with implementation of Mitigation 4.7.2, potential hazardous impacts associated with ACMs and lead would be reduced to a less than significant level.</p>	<p>If the predemolition surveys find evidence of ACMs or lead, all such materials shall be removed, handled, and properly disposed of by appropriately licensed contractors according to all applicable regulations during demolition of structures (40 CFR, Subchapter R, TSCA, Parts 745, 761, and 763). Air monitoring shall be completed by appropriately licensed and qualified individuals in accordance with applicable regulations both to ensure adherence to applicable regulations (e.g., South Coast Air Quality Management District [SCAQMD]) and to provide safety to workers. The City shall provide documentation (e.g., all required waste manifests, sampling, and air monitoring analytical results) to the LBFD showing that abatement of any ACMs or lead identified in these structures has been completed in full compliance with all applicable regulations and approved by the appropriate regulatory agencies (40 CFR, Subchapter R, TSCA, Parts 716, 745, 761, 763, and 795 and California Code of Regulations Title 8, Article 2.6). An Operating and Maintenance Plan shall be prepared for any ACM or lead to remain in place and shall be reviewed and approved by the LBFD.</p> <p>Refer to Mitigation Measure 4.8.1 in Section 4.8, Hydrology and Water Quality, below.</p>	

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>There is a potential to encounter dissolved metals levels in groundwater in excess of the allowable limits for discharge to the storm drain system. This will be addressed through compliance with the applicable National Pollution Discharge Elimination System (NPDES) permit or the Los Angeles Regional Water Quality Control Board's (RWQCB's) Groundwater Discharge Permit, which would require testing and treatment (as necessary) of groundwater encountered during groundwater dewatering prior to release to the storm drain system. If dewatered groundwater cannot meet the discharge limitations specified in the Groundwater Discharge Permit, groundwater would be disposed of in the sewer system and would have to meet Los Angeles County Sanitation District (LACSD) discharge limits prior to release to the storm drain system.</p> <p>The potential that groundwater is impacted by petroleum hydrocarbons beneath the site is low. The low potential for encountering petroleum hydrocarbons in groundwater during excavation for the pool would be managed through compliance with a Contingency Plan that addresses the potential to encounter unknown hazards or hazardous substances during construction activities that would be approved by the LBFD. This Contingency Plan requirement is included as Mitigation Measure 4.7.1. Therefore, with implementation of Mitigation Measure 4.7.1, impacts related to the potential to encounter petroleum hydrocarbons in groundwater during construction would be less than significant.</p>		

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>Operation of the proposed Project would not include uses with the potential to generate large quantities of hazardous and/or toxic materials, and would, therefore, have less than significant impacts related to the potential to cause fires or result in serious accidents from hazardous materials and substances. Pool and building maintenance associated with the proposed Project may include the use of chemicals that can be hazardous if not properly used, stored, or disposed. However, the use, storage, and handling of these pool maintenance hazardous materials is regulated by the United States Environmental Protection Agency (EPA), the California Building Code, the County of Los Angeles Department of Environmental Health, the LBFD and California Occupational Safety and Health Administration (Cal/OSHA). Compliance with applicable regulations would ensure that potential hazardous material impacts associated with the operation of the proposed Project would be less than significant.</p>		
<p>Threshold 4.7.2: Create a significant hazard to the public or the environment through reasonably foreseeable accident conditions involving the release of hazardous materials into the environment.</p> <p>Less than Significant Impact with Mitigation Incorporated. Refer to the impact discussion under Threshold 4.7.1, above.</p>	<p>Refer to Mitigation Measures 4.7.1 and 4.7.2, above.</p>	<p>Less than Significant.</p>
<p>Threshold 4.7.3: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.</p>	<p>Refer to Mitigation Measure 4.7.2, above.</p> <p>Refer to Mitigation Measure 4.8.1, under Section 4.8, Hydrology and Water Quality, below.</p>	<p>Less than Significant.</p>

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>Less than Significant Impact with Mitigation Incorporated. Construction activities would involve the use of potentially hazardous materials, including vehicle fuels, oils, and transmission fluids. All potentially hazardous materials would be contained, stored, and used in accordance with manufacturers’ instructions and handled in compliance with existing federal, State, and local regulations to ensure that the amounts of these materials present during construction would be limited and would not pose a significant adverse hazard to workers or the environment. Furthermore, with implementation of Mitigation Measure 4.8.1 of Section 4.8, Hydrology and Water Quality, as well as Mitigation Measure 4.7.2, any associated risk would be adequately reduced to a level that is less than significant through compliance with these mitigation measures and applicable standards and regulations. Therefore, the limited use and storage of hazardous materials during construction of the proposed Project would not pose a significant hazard to the public or the environment, including the Belmont Shore Children’s Center.</p> <p>Operation of the proposed Project would not include uses with the potential to generate large quantities of hazardous and/or toxic materials and, therefore, the potential to cause fires or result in serious accidents from hazardous materials and substances during operations is less than significant. Pool and building maintenance associated with the proposed Project may include the use of chemicals that can be hazardous if not properly used, stored, or disposed. However, the use, storage, and handling of these pool maintenance hazardous materials is regulated by the EPA, the California Building Code, the County of Los Angeles Department</p>		

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>of Environmental Health, the LBFD, and Cal/OSHA. Proper routine use of these hazardous products would not result in a significant hazard to the school, residents, or workers in the vicinity of the proposed Project. The proposed Project would not produce any significant amounts of hazardous emissions; any hazardous materials on site would be handled in accordance with all applicable regulations, including containment, reporting, and remediation requirements, in the event of a spill or accidental release. Therefore, operation of the proposed Project would not result in a significant impact associated with hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school, and no mitigation is required.</p>		
<p>Threshold 4.7.4: Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.</p> <p>Less than Significant Impact. The Hazardous Materials Assessment (HMA) prepared for the proposed Project (refer to Appendix F of this Draft EIR) determined that the Project site is not included on any hazardous materials sites pursuant to Government Code Section 65962.5, including the Cortese List, and would not create a significant hazard to the public or the environment. No mitigation is required.</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>
<p>Cumulative Hazard and Hazardous Material Impacts.</p> <p>Less than Significant Impact with Mitigation Incorporated. There are no known projects adjacent to or in the vicinity of the</p>	<p>Refer to Mitigation Measures 4.7.1 and 4.7.2, above.</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>Project site that could be affected by on-site handling of hazardous materials or that could result in significant hazards or hazardous materials impacts on site. The contribution of hazardous materials use and hazardous waste disposal with implementation of the Project is minimal, and combined hazardous materials effects from past, present, and reasonably foreseeable projects within the City would not be significant. As previously stated, the proposed Project would involve the use of potentially hazardous materials related to pool and building maintenance (e.g., solvents, cleaning agents, paints, pesticides, and diesel and petroleum fuels), but these products would be used in small amounts and any spills that do occur would be cleaned up when they occur. Proper and routine use of these products would not result in a significant hazard to residents or workers in the vicinity of the proposed Project.</p> <p>Impacts associated with removal of unknown hazardous materials during construction and use of hazardous materials on site would be controlled through application of the procedures set forth in Mitigation Measures 4.7.1 and 4.7.2. Accordingly, the proposed Project’s contribution to hazardous materials impacts would be less than cumulatively significant with implementation of mitigation.</p>		
4.8 HYDROLOGY AND WATER QUALITY		
<p>Threshold 4.8.1: Violate any water quality standards or waste discharge requirements.</p> <p>Less than Significant Impact with Mitigation Incorporated. Pollutants of concern during construction include sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals. During construction activities, it is anticipated that</p>	<p>Mitigation Measure 4.8.1: Construction General Permit. Prior to issuance of a grading permit, the City of Long Beach (City) shall obtain coverage for the proposed Project under the State Water Resources Control Board National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, Permit No. CAS000002), as amended by Order</p>	<p>Less than Significant.</p>

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>the Project site would be graded and/or excavated, resulting in exposed soil. Consequently, there would be an increased potential for soil erosion compared to existing conditions. In addition, chemicals, liquid products, petroleum products (e.g., paints, solvents, and fuels), and concrete-related waste may be spilled or leaked and have the potential to be transported via storm runoff into downstream receiving waters (i.e., the beach and, ultimately, the Pacific Ocean). Furthermore, due to the anticipated depth of excavation and the depth of groundwater, groundwater is anticipated to be encountered during excavation, which would require groundwater dewatering. Groundwater may contain high levels of total dissolved solids and other constituents that could be introduced to surface waters. Implementation of Mitigation Measures 4.8.1 and 4.8.2, which require compliance with the General Construction Permit and the Groundwater Discharge Permit, including implementation of Best Management Practices (BMPs) to target pollutants of concern, would reduce potential construction impacts related to violation of water quality standards or waste discharge requirements and degradation of water quality to less than significant levels.</p> <p>Pollutants of concern during operation of the proposed on-site uses could potentially include pathogens, metals, nutrients, pesticides, organic compounds, sediment, trash and debris, oxygen-demanding substances, and oil and grease. The proposed Project would result in a permanent decrease in impervious surface area of approximately 0.5 acre (ac) and an increase in pervious area of approximately 0.5 ac. A decrease in impervious area would decrease the volume of runoff during a storm. As specified in Mitigation Measure 4.8.3, a Standard Urban Stormwater</p>	<p>Nos. 2010-0004-DWQ and 2012-0006-DWQ (Construction General Permit), or subsequent issuance. For projects with a disturbed area of 5 or more acres, a Storm Water Pollution Prevention Plan (SWPPP) with construction Best Management Plans (BMPs) is required to be submitted to both the Los Angeles Regional Water Quality Control Board (RWQCB) and the City.</p> <p>The City shall provide the Waste Discharge Identification Numbers to the Development Services Director to demonstrate proof of coverage under the Construction General Permit. A SWPPP shall be prepared and implemented for the proposed Project in compliance with the requirements of the Construction General Permit. The SWPPP shall identify construction BMPs to be implemented to ensure that the potential for soil erosion and sedimentation is minimized and to control the discharge of pollutants in storm water runoff as a result of construction activities.</p> <p>Mitigation Measure 4.8.2: Dewatering During Construction Activities. During project construction, the City of Long Beach Development Services Director, or designee, shall ensure that any dewatering activities during construction shall comply with the requirements of the Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties (Order No. R4-2013-0095, Permit No. CAG994004) (Groundwater Discharge Permit) or subsequent permit. This Groundwater Discharge Permit shall include submission of a Notice of Intent (NOI) for coverage under the permit to the Los</p>	

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>Mitigation Plan (SUSMP) would be developed for the proposed Project, which would include the BMPs that would be consistent with the requirements of the City of Long Beach (City) Low Impact Development (LID) BMP Design Manual and would target pollutants of concern from the Project site. In addition, the SUSMP would include an operations and maintenance plan for the bioswales, drywell, filtration strip, and an underground detention basin to ensure their long-term performance. Implementation of BMPs that target pollutants of concern in runoff from the Project site, as required by Mitigation Measure 4.8.3, would reduce potential operational impacts related to violation of water quality standards or waste discharge requirements and degradation of water quality to less than significant levels.</p>	<p>Angeles RWQCB at least 45 days prior to the start of dewatering and compliance with all applicable provisions in the permit, including water sampling, analysis, and reporting of dewatering-related discharges. If dewatered groundwater cannot meet the discharge limitations specified in the Groundwater Discharge Permit, a permit shall be obtained from the Los Angeles County Sanitation District (LACSD) to discharge groundwater to the sewer per LACSD’s Wastewater Ordinance.</p> <p>Mitigation Measure 4.8.3: Standard Urban Stormwater Mitigation Plan. Prior to issuance of grading permits, the City shall submit a Final Standard Urban Stormwater Mitigation Plan (SUSMP) for the proposed Project to the Development Services Director for review and approval. Project-specific site Design, Source Control, and Treatment Control BMPs contained in the Final SUSMP shall be incorporated into final design. The BMPs shall be consistent with the requirements of the <i>Low Impact Development (LID) Best Management Practices (BMP) Design Manual</i>. Additionally, the BMPS shall be designed and maintained to target pollutants of concern and reduce runoff from the Project site. The SUSMP shall include an operations and maintenance plan for the prescribed Treatment Control BMPs to ensure their long-term performance.</p>	
<p>Threshold 4.8.2: Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>permits have been granted).</p> <p>Less than Significant Impact. Due to the depth of groundwater (i.e., 6 to 9 feet [ft] below existing grades) and the anticipated depth of excavation (up to 13 ft below existing grade), groundwater dewatering is anticipated to be required during removal of the remaining wooden piles, and construction of the pools. However, groundwater-dewatering activities would be temporary, and the volume of groundwater removed would not be substantial. In addition, grading and construction activities would compact soil, which can decrease infiltration during construction. However, construction activities would be temporary, and the reduction in infiltration would not be substantial. Therefore, construction of the proposed Project would not substantially deplete groundwater or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Construction impacts related to groundwater supplies would be less than significant, and no mitigation is required.</p> <p>Operation of the proposed Project would not require groundwater extraction. The proposed Project would not directly utilize local groundwater but would continue to use water from the local municipal supply. Additionally, the proposed Project would replace the existing facility with a similar facility. As discussed previously, the proposed Project would decrease impervious surface by 0.5 ac, which would increase infiltration. As a result, the proposed Project would not constitute interference with groundwater recharge such that there would be a net deficit in</p>		

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>aquifer volume or a lowering of the local groundwater table level. Operational impacts related to groundwater supplies would be less than significant, and no mitigation is required.</p>		
<p>Threshold 4.8.3: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site.</p> <p>Less than Significant Impact with Mitigation Incorporated. During construction, there is the potential for the drainage pattern on the Project site to be altered temporarily. During a storm event, soil erosion and sedimentation could occur at an accelerated rate. In addition, grading and construction activities would compact soil, which can increase runoff during construction. Implementation of Mitigation Measure 4.8.1, which requires compliance with the requirements of the Construction General Permit and implementation of BMPs during construction, would reduce potential construction impacts related to erosion, siltation, and flooding to less than significant levels.</p> <p>There are no on-site streams or rivers. Therefore, the proposed Project would not alter the course of a stream or river.</p> <p>The proposed Project would change on-site drainage patterns by adding impervious surface areas and structures. However, flows from the Project site would continue to discharge to the existing off-site storm drain system. The proposed Project would decrease the overall impervious area by 0.5 ac and increase the pervious area by 0.5 ac, resulting in an increase in filtration. The proposed</p>	<p>Refer to Mitigation Measures 4.8.1 and 4.8.3, above.</p> <p>Mitigation Measure 4.8.4: Hydrology Reports. Prior to issuance of grading permits, the City shall submit a final hydrology report for the proposed Project to the City Development Services Director, or designee, for review and approval. The hydrology report shall demonstrate, based on hydrologic calculations, that the proposed Project’s on-site storm conveyance and detention and infiltration facilities are designed in accordance with the requirement of the Los Angeles County Department of Public Works Hydrology Manual.</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>Project would also include a comprehensive drainage system to convey on-site storm flows, including on-site detention and infiltration BMPs. In the proposed condition, the impervious surface areas would not be prone to erosion or siltation. With implementation of Mitigation Measure 4.8.3, which requires the implementation of Treatment BMPs to control runoff, and Mitigation Measure 4.8.4, which requires the development of a hydrology report to ensure flows would not exceed existing storm drain facilities, the proposed Project would not contribute to an increase in downstream erosion, siltation, or flooding.</p>		
<p>Threshold 4.8.4: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site.</p> <p>Less than Significant Impact with Mitigation Incorporated. Refer to the impact discussion under Threshold 4.8.3, above.</p>	<p>Refer to Mitigation Measures 4.8.1, 4.8.3 and 4.8.4, above.</p>	<p>Less than Significant.</p>
<p>Threshold 4.8.5: Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.</p> <p>Less than Significant Impact with Mitigation Incorporated. The proposed Project has the potential to introduce pollutants into the storm water drainage system through erosion, siltation, and accidental spills. In addition, grading and construction activities would compact soil, which can increase runoff during construction. Furthermore, due to the depth of groundwater (i.e., 6 to 9 ft below</p>	<p>Refer to Mitigation Measures 4.8.1 through 4.8.4, above.</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>existing grades) and the anticipated depth of excavation (up to 13 ft below existing grade), groundwater dewatering is anticipated to be required during the removal of the remaining wooden piles and construction of the pools. However, groundwater-dewatering activities would be temporary, and the volume of groundwater removed would not be substantial. With implementation of Mitigation Measures 4.8.1 and 4.8.2, which require compliance with the General Construction Permit and the Groundwater Discharge Permit, construction impacts related to exceeding the capacity of, and providing additional sources of polluted runoff to, storm water drainage systems would be reduced to less than significant levels.</p> <p>The proposed Project would decrease impervious surface area by 0.5 ac and increase the pervious area by approximately 0.5 ac, which would decrease the volume and velocity of runoff on the site. The proposed Project would also include a comprehensive drainage system to convey on-site storm flows. With implementation of Mitigation Measure 4.8.3 which requires the implementation of Treatment BMPs to control runoff, and Mitigation Measure 4.8.4, which requires the development of a hydrology report to ensure flows would not exceed existing storm drain facilities, operational impacts related to exceedance of the capacity of, and providing additional sources of polluted runoff to, storm water drainage systems would be reduced to a less than significant level.</p>		

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>Threshold 4.8.6: Otherwise substantially degrade water quality.</p> <p>Less than Significant Impact with Mitigation Incorporated. Refer to the impact discussion under Threshold 4.8.1, above.</p>	<p>Refer to Mitigation Measures 4.8.1 and 4.8.2, above.</p>	<p>Less than Significant.</p>
<p>Threshold 4.8.8: Place within a 100-year flood hazard area structures which would impede or redirect flood flows.</p> <p>Less Than Significant Impact with Mitigation Incorporated. According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 06037C1970F (September 26, 2008), the eastern half of the Project site is located within Zone A, a Special Flood Hazard Area (SFHA) subject to inundation by the 1-percent annual chance of flood, and the western half of the Project site is located within Zone X, areas determined to be outside the 0.2-percent chance (500-year) floodplain (see Figure 4.8.3). The City is a participant in the National Flood Insurance Program (NFIP), which allows City property owners to obtain federally backed flood insurance. FEMA requires that all projects within Zone A enforce NFIP floodplain management regulations and purchase mandatory flood insurance. In addition, implementation of Mitigation Measure 4.8.5 would require a floodplain report to be prepared in order to reduce impacts to the floodplain. Compliance with City and FEMA regulations and implementation of Mitigation Measure 4.8.5 would ensure that the proposed Project would not expose people or structures to the risk of flooding, create floodplains, or result in an increase in the base flood elevation. Therefore, impacts associated with flood hazard areas would be less than significant.</p>	<p>Mitigation Measure 4.8.5: Floodplain Report. During final design, the Project engineer shall prepare and submit a floodplain/hydrology report to the City Development Services Director, or designee, to address any potential impacts to the floodplain and, if required, reduce those impacts. The report shall comply with City and Federal Emergency Management Agency (FEMA) regulations and shall not increase the base flood elevation by more than 1 foot. Detailed analysis shall be conducted to ensure that the Project design specifically addresses floodplain issues so that the proposed Project complies with local and FEMA regulations on floodplains.</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>Threshold 4.8.9: Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.</p> <p>Less than Significant Impact. According to the City 2015 Natural Hazards Mitigation Plan (NHMP), three flood control dams lie upstream of the City: Sepulveda Basin, Hansen Basin, and Whittier Narrows Basin. Sepulveda and Hansen Basins lie more than 30 miles upstream from where the Los Angeles River passes through the City, which is north of the Project site. According to the Sepulveda and Hansen Dam Failure Inundation Maps, the Project site is not located within the dam inundation area. In addition, flood waters from these dam failures are expected to dissipate before reaching the City, due to low and flat ground and their distances from the City.</p> <p>The Project site is located within the dam inundation area for the Whittier Narrows Dam.¹ According to the United States Army Corps of Engineers (USACE), Dam Safety Program, the Whittier Narrows Dam received a Dam Safety Action Class II rating in December 2008. This rating is assigned to dams where failure could begin during normal operations or be initiated as the consequence of a natural event (e.g., an earthquake). This classification indicates that the likelihood of failure, prior to remediation, is too high to assure public safety, or that the combination of life or economic consequences with probability of</p>	<p>No mitigation is required.</p>	<p>Less than significant.</p>

¹ City of Long Beach. 2015. City of Long Beach Natural Hazards Mitigation Plan.

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>failure is very high. However, because of the Project site’s location at the furthest point away from the Whittier Narrows Dam within the inundation area, flooding would significantly dissipate by the time it reached the Project site. In addition, the City would have ample time to notify on-site users to evacuate and on-site users would have ample time to evacuate before waters reached the Project site. Additionally, the Project does not propose the development of habitable structures on site, thereby further minimizing the risk to life and property in the event of a dam failure. Furthermore, the USACE has implemented the following Interim Risk Reduction Measures to reduce impacts to life and property in the event of dam failure: remote monitoring, inspection and monitoring, flood mapping, updating the Emergency Action Plan annually, inspecting toe drain and gallery, and initiating a Dam Safety Modification Study. The City has also developed emergency preparedness plans that would help the public be prepared for these types of emergency situations. In addition, the County of Los Angeles has regional catastrophic preparedness planning and regional evacuation routes. Therefore, because the City and County have implemented mitigation plans, emergency preparedness plans, and evacuation routes, impacts associated with the failure of a dam or levee would be less than significant, and no mitigation is required.</p>		
<p>Threshold 4.8.10: Inundation by seiche, tsunami, or mudflow.</p> <p>Less than Significant Impact. According to the Geotechnical Evaluations (Appendix E of this Draft EIR) prepared for the proposed Project, the Project site is not located in the vicinity of any large enclosed bodies of water that could adversely affect the</p>	<p>No mitigation is required.</p>	<p>Less than significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>Project site in the event of earthquake-induced seiches. Therefore, the risk associated with possible seiche waves is not considered a potential constraint or a potentially significant impact of the proposed Project, and no mitigation is necessary.</p> <p>The proposed Project is adjacent to the beach and the Pacific Ocean and is within a tsunami inundation zone. Up to 900 patrons are anticipated as part of typical daily operations of the Belmont Pool. Although there could be an increase in visitors to the site during special events, the proposed Project is replacing an existing use and would not create a new risk. Additionally, the proposed Project would not increase the risk of a tsunami occurring. Furthermore, the City has adopted the 2015 Draft Hazard Mitigation Plan (as well as emergency preparedness plans) for the purpose of protecting the lives, property, and facilities of citizens, employees, businesses, industry, infrastructure, and the environment from natural hazards. In addition, the County of Los Angeles has developed regional catastrophic preparedness planning and regional evacuation routes. Therefore, the risks associated with tsunamis are considered less than significant, and no mitigation is required.</p> <p>The Project site is relatively level and the absence of nearby slopes precludes any slope stability hazards. Furthermore, the site is not in a State Earthquake-Induced Landslide Hazard Zone. Therefore, the proposed Project would result in less than significant impacts related to exposure of people or structures to risk of loss, injury, or death involving flooding as a result of inundation by mudflow, and no mitigation is required.</p>		

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>Cumulative Hydrology and Water Quality Impacts.</p> <p>Less than Significant Impact. As with the proposed Project, future development within the Project vicinity would be subject to NPDES and Municipal Separate Storm Sewer System (MS4) Permit requirements for both construction and operation. Each project would be required to develop a Storm Water Pollution Prevention Plan (SWPPP) and/or a SUSMP to target site-specific pollutants of concern. Each project would also be evaluated individually to determine appropriate BMPs to minimize impacts to surface water quality. Furthermore, because the Los Cerritos Channel and Alamitos Bay WMA are along the Pacific Ocean, there is the potential for cumulative projects, individually and cumulatively, to result in an encroachment into the 100-year flood zone, similar to the proposed Project. However, as with the proposed Project, each of the cumulative projects would be required to comply with City and FEMA regulations and prepare a Floodplain Report during final design to address any potential impacts to the floodplain, and if required, reduce those impacts. In addition, the City Development Services Director reviews all development projects on a case-by-case basis to ensure that sufficient local and regional drainage capacity is available. Thus, the proposed Project's contribution to cumulative impacts to hydrology and water quality would be less than cumulatively significant.</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>
4.9: LAND USE AND PLANNING		
<p>Threshold 4.9.2: Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the General Plan,</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>Specific Plan, Local Coastal Program, or Zoning Ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.</p> <p>Less than Significant Impact. In November 1961, the Long Beach City Council voted to place an item in the February 1962 municipal election for the use of Tidelands funds for the construction of the “Belmont Plaza Beach Center” (now Belmont Plaza) Project, which included a swimming pool, wading pool, and public parking lot. Proposition 7 was approved by the voters in February 1962, clearing the way for the use of the site for public purposes. The City Council ratified the election results in March 1962, paving the way for site acquisition and eventual construction of the “Belmont Plaza Beach Center.”</p> <p>In January 1967, plans were approved for a group of structures at Belmont Plaza, a site west of the Belmont Pier on the beach in Belmont Shore. The Belmont Pool opened in 1968 in time for the United States (U.S.) Olympic swimming trials. The facility hosted both the 1968 and the 1976 U.S. Olympic swimming trials, as well as the 1974 and 1978 National Collegiate Athletic Association (NCAA) swimming championships. Mark Spitz, Don Schollander, and Charles Hickox set men’s records during these trials. After the 1968 trials, the Belmont Pool facility was opened to the public for recreational purposes and has remained open for public use on the site for approximately 45 years. As such, the Belmont Pool facility has long been included in applicable land use and planning documents regulating the site.</p>		

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>California Coastal Commission/California Coastal Act/Local Coastal Program: The proposed Project is consistent with the policies and guidelines contained in the Local Coastal Program (LCP), which states, “Belmont Plaza Pool is a facility which was designed and is utilized for Olympic-class swimming and diving events. It is, therefore, unusually important in the training of U.S. athletes for international events.”</p> <p>The policies within Chapter 3 of the California Coastal Act are intended to provide protection for suitable oceanfront lands to be used for water-oriented and recreational purposes. The proposed Project is consistent with the intent of these policies. Because the proposed Project is consistent with applicable California Coastal Act policies, impacts are considered less than significant. No mitigation is required.</p> <p>SCAG RCP: The Southern California Association of Governments (SCAG) maintains an Intergovernmental Review Criteria List to assist agencies in determining whether a project is considered regionally significant. The proposed Project is not listed by SCAG as a project of regional significance. Therefore, the proposed Project would not result in impacts related to regional planning issues, and no mitigation is required.</p> <p>SCAG’s Regional Comprehensive Plan (RCP) aims to reduce emissions and increase mobility through strategic land use changes. The proposed Project is a replacement/expansion of previous recreational facilities and would not alter the designated or previous land uses on the Project site. Therefore, these RCP</p>		

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>strategies are not applicable to the proposed Project. No mitigation is required.</p> <p>General Plan Land Use Element: The City of Long Beach (City) General Plan land use designations for the Project site are Land Use Division (LUD) No. 7, Mixed-Use, and LUD No. 11, Open Space and Parks. According to the City’s General Plan, LUD No. 7 is intended for large vital activity centers. Combinations of land uses intended in LUD No. 7 include employment centers, visitor-serving uses, high-density residential, personal or professional services, and recreation uses. Consistent with the intent of LUD No. 7, the proposed Project includes the replacement of the former facility and construction of the new Belmont Pool complex, which is a visitor-serving recreational use. The proposed Project also includes an open space/park area (a park use), an outdoor café (a retail use) and gathering area, and public restrooms, consistent with permitted land uses as allowed within LUD No. 7. Permitted uses within LUD No. 11 include employment centers (e.g., retail, offices, and medical facilities), high-density residential uses, visitor-serving facilities, personal and professional services, and recreational uses. LUD No. 11 is intended to provide for “preserving natural habitat areas and promoting the mental and physical health of the community through recreational, cultural, and relaxation pursuits. Parks are characterized by open spaces devoted to leisure activities including the enjoyment of nature, wildlife, cultural heritage, sports, and similar activities.” The proposed Project is a visitor-serving facility and provides recreational opportunities. Therefore, the proposed Project would be consistent with both LUD No. 7 and LUD No. 11.</p>		

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>The City’s General Plan Land Use Element also contains goals and policies that are applicable to the proposed Project. Although the proposed Project’s building height would be similar to the former Belmont Pool facility, the proposed Project would require a variance to allow for the proposed 71-foot (ft) high Belmont Pool structure. However, the former Belmont Pool facilities also exceeded the Zoning Code requirement with a maximum height of 60 ft. Additionally, because the proposed Project would be a domed structure, the maximum height would only be reached at one point and several portions of the structure would be lower in height than the former Belmont Pool facility. Replacing and improving the pool facilities and related ancillary uses on the Project site would also be consistent with the existing land uses in the area and would not conflict with the recreational objectives of the existing land use designations. Further, the proposed Project would improve the character of the recreation areas and would further the objective of supporting recreation uses. The proposed Project would result in a modern aquatics facility that is Americans with Disabilities Act of 1990 (ADA) compliant, which would increase the overall value of the Project site as a recreational resource consistent with the designations within the General Plan Land Use Element.</p> <p>The City is currently in the process of updating its General Plan Land Use Element. Under the new Land Use Element, the proposed Project would be in an area designated for waterfront uses which, among other things, would allow for redevelopment of the Belmont Pier and Pool Complex. As such, in the event that the proposed Project is approved after the General Plan is updated, the</p>		

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<p>proposed Project would be consistent with the City’s General Plan land use designation for the site. Therefore, implementation of the proposed Project would not result in significant land use compatibility issues with the City’s General Plan Land Use Element.</p> <p>General Plan Open Space and Recreation Element: The City’s Open Space and Recreation Element defines the Belmont Pool complex as a special-use park because of the numerous recreational amenities and specialized aquatic uses it has provided. The proposed Project would be consistent with the objectives and policies established in the General Plan Open Space and Recreation Element for the Project area because the proposed Project would enhance recreation opportunities and facilities on the Project site. Therefore, no adverse impacts to open space and recreation amenities would result, and mitigation would not be required.</p>		
<p>Cumulative Land Use and Planning Impacts.</p> <p>Less than Significant Impact. The Project site is currently designated as LUD No. 7 and LUD No. 11 by the City’s General Plan Land Use Element and General Plan Land Use Map. These land use designations allow for parks and open space and the development of a mix of commercial, recreation, and retail uses. As such, development of the proposed Project would be consistent with the existing General Plan land use designations. The land use patterns around the Project site have been long established with recreational, open space, and small areas of retail (food and concession areas) development. The proposed Project involves</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>replacement of a former pool facility and would be compatible with development in the immediate area surrounding the Project site. Therefore, the construction of the new Belmont Pool facilities would not result in a potential inconsistency with the City General Plan or other land planning documents, nor would the proposed Project result in significant land use compatibility issues.</p> <p>Land use compatibility is a combination of other impacts, including potential aesthetic, air quality, noise, and traffic impacts. Potential cumulative impacts associated with traffic generation and related air quality and noise impacts are addressed in those topical sections of this Draft EIR. None of these related environmental topics were found to have significant cumulative effects. Therefore, implementation of the proposed Project would not result in, or contribute to, a cumulatively significant land use impact, and no mitigation is required.</p>		
4.10: NOISE		
<p>Threshold 4.11.1: Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.</p> <p>Less than Significant Impact with Mitigation Incorporated.</p> <p>Traffic Noise. Project-related traffic noise levels would have a traffic noise increase of up to 2.4 A-weighted decibels (dBA), except for Bennett Avenue south of Ocean Boulevard. Although traffic noise levels along Bennett Avenue south of Ocean Boulevard would increase by up to 7.2 dBA, this roadway segment is the entrance to the proposed Project, and there are no off-site</p>	<p>Mitigation Measure 4.10.1: Prior to issuance of the occupancy permit, the City of Long Beach’s (City) Development Services Director, or designee, shall verify that a sound engineer has designed the permanent and temporary sound systems such that the City’s exterior noise standards (daytime exterior noise level of 50 dBA L₅₀) are not exceeded at the surrounding sensitive land uses. Measures capable of reducing the noise levels include, but are not limited to:</p> <ul style="list-style-type: none"> • Reducing the source levels; • Reducing the speaker elevations; • Directing the speakers away from adjacent noise-sensitive 	<p>Less than Significant.</p>

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>noise-sensitive land uses adjacent to this segment of the road. The traffic noise increases of up to 2.4 dBA along other roadway segments in the vicinity of the Project are less than the 3 dBA threshold normally perceptible by the human ear in an outdoor environment. Therefore, no significant traffic noise impacts would occur on off-site noise-sensitive land uses. No mitigation measures for off-site uses would be required. Also, on-site traffic noise impacts would not occur because the Project is not considered to be noise sensitive, and mitigation measures for on-site uses are not required.</p> <p>Long-Term Operation. Noise levels generated from the outdoor pool under normal operations would be less than 50 dBA L_{eq} (equivalent continuous sound level measured in A-weighted decibels) at the perimeter of the facility. Noise levels generated from the indoor pool would not impact the closest residences at the Belmont Shore Condominiums, which is approximately 180 feet (ft) from the building edge of the proposed Project because the combination of building attenuation and distance attenuation would be 46 dBA. Therefore, noise generated under normal operations and from the indoor pool would not have the potential to impact nearby noise-sensitive uses.</p> <p>Crowd, Spectator, and Public Address System Noise.</p> <p>Noise levels generated from the outdoor pool during special events would have the potential to impact nearby noise-sensitive uses because these events would involve a substantial number of spectators, whistles from officiating water polo games, starting</p>	<p>land uses; and</p> <ul style="list-style-type: none"> Using highly directional speakers. 	

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>horns, and the use of a public address sound system.</p> <p>Interior Noise. Classrooms associated with the Belmont Shores Children’s Center, the residences to the northeast, and the residences to the northwest may be subject to interior noise levels from crowd noise, speaker noise, and combined noise levels, with windows and doors open. However, noise levels at the outdoor seating area would not exceed any of the City’s daytime interior standards at either the Belmont Shores Children’s Center or the two residential locations. In addition, because the proposed Project is not expected to be used after 10:00 p.m., no nighttime operational noise would occur and, therefore, no violation of the City’s nighttime noise standards would occur.</p> <p>Exterior Noise. The playground associated with the Belmont Shores Children’s Center, the residences to the northeast, and the residences to the northwest may be subject to exterior noise levels from crowd noise. However, spectator noise levels from the temporary outdoor seating would not exceed any of the City’s daytime exterior noise levels at the Belmont Shores Children’s Center or the closest residences, therefore, no violation of the City’s daytime noise standards would occur.</p> <p>The playground associated with the Belmont Shores Children’s Center, outdoor living areas associated with residences to the northeast (across from Ocean Boulevard), and residences to the northwest (across from Termino Avenue) may be subject to exterior noise levels from speaker noise and combined noise levels from the crowd and speaker noise. Speaker noise levels would</p>		

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>potentially exceed the City’s daytime exterior standard at the playground of the Belmont Shores Children’s Center, and at the two residential locations. Implementation of Mitigation Measure 4.10.1, which requires measures to reduce noise levels from the speakers, would reduce the combined noise level to less than the City’s exterior noise standards. Therefore, this impact would be less than significant after mitigation.</p>		
<p>Threshold 4.11.2: Expose persons to or generate excessive groundborne vibration or groundborne noise levels.</p> <p>Less than Significant Impact. The primary source of vibration during construction would be generated by front-end loaders, small bulldozers, dump trucks, hydraulic hammers, and pile drivers. The estimated vibration level at the closest receptors would be 0.049 inches/second and 0.097 inches/second, for residences to the northeast and northwest, respectively, and 0.101 inches/second at the Belmont Shores Children’s Center and other commercial buildings. These construction vibration levels are below the damage threshold of 0.3 inches/second for older residential buildings and 0.5 inches/second for modern industrial commercial buildings. Therefore, the proposed Project would result in a less than significant impact, and no mitigation is required.</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>
<p>Threshold 4.11.3: Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.</p> <p>Less than Significant Impact. Project-related traffic noise levels would have a traffic noise increase of up to 2.4 dBA, except for Bennett Avenue south of Ocean Boulevard. Although traffic noise</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>levels along Bennett Avenue south of Ocean Boulevard would increase by up to 7.2 dBA, this roadway segment is the entrance to the proposed Project and there are no off-site noise-sensitive land uses adjacent to it. The traffic noise increases of up to 2.4 dBA along other roadway segments in the Project area are less than the 3 dBA threshold normally perceptible by the human ear in an outdoor environment. Therefore, no significant traffic noise impacts or permanent increase in ambient noise levels would occur in the Project vicinity or to off-site noise-sensitive land uses. No mitigation measures are required.</p>		
<p>Threshold 4.11.4: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.</p> <p>Less than Significant Impact with Mitigation Incorporated.</p> <p>Construction Noise. Two types of short-term noise impacts would occur during Project construction.</p> <p>The first type would be from construction crew commutes and the transport of construction equipment and materials to the Project site. A high single-event noise exposure potential at a maximum level of 84 dBA L_{max} from trucks passing at 50 ft will exist. However, the projected construction traffic will be minimal when compared to existing traffic volumes on Ocean Boulevard and other affected streets, and its associated long-term noise level change will not be perceptible. Therefore, short-term construction-related worker commutes and equipment transport noise impacts</p>	<p>Mitigation Measure 4.10.2. Prior to issuance of demolition or grading permits, the City of Long Beach’s (City) Development Services Director, or designee, shall verify that construction and grading plans include the following conditions to reduce potential construction noise impacts on nearby sensitive receptors:</p> <ul style="list-style-type: none"> • During all site excavation and grading, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers’ standards; • The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the Project site; • The construction contractor shall locate equipment staging to create the greatest distance between construction-related noise sources and noise-sensitive receptors nearest the Project site during all Project construction; • The construction contractor shall ensure that engine idling from construction equipment (i.e., bulldozers and haul trucks) 	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>would be less than significant.</p> <p>The second type of short-term noise impacts is related to the noise generated by heavy construction equipment operating at the Project site. The closest existing sensitive receptors would be subject to short-term noise levels that would be higher than existing ambient noise levels in the Project area but would no longer occur once construction of the Project is completed. In addition, noise generated from construction activities would be intermittent and temporary. Section 8.80.202 of the City of Long Beach (City) Municipal Code allows elevated construction-related noise levels as long as the construction activities are limited to the hours specified. Adherence to the City’s noise regulations and implementation of Mitigation Measures 4.10.2 and 4.10.3, which require standard conditions for construction and conducting a preconstruction community meeting, would reduce construction noise impacts to sensitive receptors. Therefore, temporary increases in ambient noise levels in the proposed Project vicinity associated with Project construction would be reduced to less than significant levels.</p>	<p>is limited to a maximum of 5 minutes at any given time; and</p> <ul style="list-style-type: none"> • The construction contractor shall ensure that all construction activities are scheduled to avoid operating several pieces of heavy equipment simultaneously. • Construction, drilling, repair, remodeling, alteration, or demolition work shall be limited to the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday, and 9:00 a.m. to 6:00 p.m. on Saturday. In accordance with City standards, no construction activities are permitted outside of these hours. <p>Mitigation Measure 4.10.3. Prior to issuance of a grading permit, the City of Long Beach Tidelands Capital Improvement Division shall hold a community preconstruction meeting in concert with the construction contractor to provide information to the public regarding the construction schedule. The construction schedule information shall include the duration of each construction activity and the specific location, days, frequency, and duration of the pile driving that will occur during each phase of the Project construction. Public notification of this meeting shall be undertaken in the same manner as the Notice of Availability mailings for this Draft Environmental Impact Report.</p>	
<p>Cumulative Noise Impacts.</p> <p>Less than Significant Impact. Currently, there are no proposed or approved but not yet fully constructed projects within the cumulative noise study area for the proposed Project. Because construction noise and vibration are localized and rapidly attenuate within an urban environment, other related projects are located too far from the Project site to contribute to cumulative impacts related</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>to noise levels due to construction activities. Construction activity at any related project site would not result in a noticeable increase in noise to sensitive receptors adjacent to the proposed Project site. Furthermore, all related projects would be required to comply with the City Noise Control Ordinance. Therefore, construction impacts would be less than cumulatively significant.</p> <p>Operations associated with the proposed Project are not anticipated to lead to a substantial increase in the number of visitors and vehicles to the Project site. Therefore, the long-term ambient noise levels associated with increased traffic are not anticipated to be significant as a result of the proposed Project, would not contribute substantially to cumulative roadway noise impacts, and would have a less than cumulatively considerable impact. Also, since no cumulative projects were identified for the cumulative noise study area, the proposed Project would not contribute to off-site cumulative noise impacts from on-site activities and would have a less than cumulatively considerable noise impact.</p>		
4.11: RECREATION		
<p>Threshold 4.11.2: Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.</p> <p>Less than Significant Impact. Construction activities would occur in close proximity to the temporary pool. However, it is anticipated that the temporary pool would remain open until completion of the new pool complex in order to accommodate the ongoing pool activities.</p>	No mitigation is required.	Less than Significant.

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>Although access to the Belmont Veteran’s Memorial Pier, parking lots, beach areas, and the pedestrian/bicycle path may be subject to disruption during construction of the proposed Project, Mitigation Measure 4.12.2 (see Section 4.12, Traffic and Circulation, of this Draft EIR) requires that a Construction Traffic Management Plan be implemented to ensure that construction activities do not prevent access to the Belmont Veteran’s Memorial Pier, beach access, and nearby pedestrian/bicycle path facilities in the Project vicinity. With implementation of the Construction Traffic Management Plan, construction activities are expected to have less than significant impacts on access to the surrounding off-site recreational facilities. Therefore, even though construction staging would occur in the Beach Parking Lot, access to recreational activities would not be significantly adversely impacted during the construction phases of the Project because access to the temporary pool and recreational uses in the surrounding areas would remain available. With implementation of Mitigation Measure 4.12.2, short-term construction-related impacts on recreational resources would be less than significant.</p> <p>The proposed Project would result in construction of new recreation facilities on site to replace the previous pool facilities. The primary goal of the proposed Project is to develop a state-of-the-art aquatic facility to serve as an important recreational and competitive venue for the City, region, and State. The proposed Project would replace the previous facility with a more modern pool complex that better meets the needs of recreational and competitive swimmers, divers, and recreational pool users. The proposed Project would redesign the existing passive park and</p>		

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>open space areas to be situated along the western and northern portions of the Project site. The current passive park and open space areas occupy approximately 118,790 square feet (sf) and 45,160 sf of the site, respectively, but would increase to approximately 127,085 sf and 55,745 sf, respectively, as a result of the proposed Project. The passive park and open space areas would be intended for general park uses, similar to the uses at the existing passive park. The passive park and open space areas would also provide for linkages from the beach to the East Olympic Plaza area and other surrounding pathways, including the rerouted bicycle and pedestrian path. The modifications to the passive park and open space areas would adapt to the proposed Belmont Pool facilities while maintaining the site’s open space and recreational benefits. Therefore, no long-term significant recreational impacts related to the operation of the proposed Project are anticipated, and no mitigation is required.</p> <p>California Coastal Act Policies. Refer to the impact discussion under Thresholds 4.9.2, under Section 4.9, Land Use and Planning.</p> <p>City of Long Beach General Plan, Open Space and Recreation Element. Refer to the impact discussion under Thresholds 4.9.2, under Section 4.9, Land Use and Planning.</p> <p>The City Department of Parks, Recreation and Marine Strategic Plan. Refer to the impact discussion under Thresholds 4.9.2, under Section 4.9, Land Use and Planning.</p>		

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>Cumulative Recreation Impacts. The Project site was previously developed as a community pool facility and would be replaced with similar recreational uses. The proposed Project would be consistent with the City’s General Plan policies and with California Coastal Commission policies. In addition, the proposed Project would expand the former pool amenities and integrate the existing public open space areas into the site design. As the replacement of a recreational facility, the proposed Project, in conjunction with the cumulative projects in the City, would contribute to the recreational opportunities in the City. The proposed Project is not anticipated to significantly increase the use or need for additional City park facilities. Compliance with City and California Coastal Commission policies and an increase in public amenities demonstrates the proposed Project would not have cumulatively considerable impacts on such resources.</p> <p>In addition, the proposed Project does not include any residential housing or a substantial increase in long-term employment opportunities that would increase the population in the City. Therefore, the proposed Project would not, with any other planned or proposed projects, cumulatively contribute to the increased use of or need for additional or expanded recreational facilities in the City. Based on these factors, the proposed Project would not contribute to adverse cumulative impacts related to recreation when combined with other foreseeable projects that are planned or expected to occur in Long Beach or the region.</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>

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4.12 TRANSPORTATION/TRAFFIC		
<p>Threshold 4.12.1: Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.</p> <p>Less than Significant Impact with Mitigation Incorporated.</p> <p>Construction Traffic. Construction traffic is not anticipated to exceed the 100 inbound and 200 outbound trips already analyzed in the a.m. peak hour or the 200 inbound and 130 outbound trips already analyzed in the p.m. peak hour that would be expected with operation of the completed pool facility. Therefore, similar to operation of the completed pool facility, intersection operation is expected to remain at an acceptable level of service (LOS) during construction. Therefore, the proposed Project would not result in a significant impact related to construction traffic, and no mitigation is required.</p> <p>Operational Traffic. All study area intersections are anticipated to operate at LOS C or better in the future with new traffic generated as a result of the proposed Project. All study area intersections would operate at an LOS that is considered acceptable by the City of Long Beach (City) (LOS D or better). Therefore, the proposed Project is not anticipated to conflict with an applicable plan,</p>	<p>Mitigation Measure 4.12.1: Event Traffic Management Plan. In the event that a large special event (defined as more than 450 spectators) is held at Belmont Pool, the City of Long Beach (City) Parks and Recreation Director, or designee, shall develop an Event Traffic Management Plan for review and approval by the City Traffic Engineer. The plan shall be designed by a registered Traffic Engineer and shall address potential impacts to traffic circulation and the steps necessary to minimize potential impacts (e.g., active traffic management and/or off-site parking and shuttles) during the large special event.</p>	<p>Less than Significant.</p>

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>ordinance, or policy establishing measures of effectiveness for the performance of the circulation system and it would have a less than significant impact relative to this threshold. No mitigation is required.</p> <p>Special Event Traffic. In the event that a large special event (i.e., any event with more than 450 spectators) is held at Belmont Pool, an Event Traffic Management Plan would need to be developed that addresses potential impacts to traffic circulation and the steps necessary to avoid potential significant traffic congestion and parking impacts. Mitigation Measure 4.12.1 requires the City to prepare and implement an Event Traffic Management Plan that requires traffic and control measures for special events to be reviewed and approved by the City Traffic Engineer. Implementation of Mitigation Measure 4.12.1 would reduce construction traffic impacts to the surrounding residences and businesses to less than significant levels.</p>		
<p>Threshold 4.12.2: Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.</p> <p>Less than Significant Impact. None of the arterial monitoring stations identified in Appendix A of the 2010 Congestion Management Plan (CMP) for the County of Los Angeles are located near the proposed Project, and the Project is not anticipated to conflict with standards established for designated roads or highways. The proposed Project would have a less than significant</p>	No mitigation is required.	Less than Significant.

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>impact relative to the adopted CMP and no mitigation is required.</p> <p>Threshold 4.12.5: Result in inadequate emergency access.</p> <p>Less than Significant Impact with Mitigation Incorporated.</p> <p>Construction. Potential temporary lane closures could restrict access for emergency vehicles. Mitigation Measure 4.12.2 requires that a Construction Traffic Management Plan be prepared for the proposed Project, which would ensure that emergency vehicles would be able to navigate through streets adjacent to the Project site that may experience congestion due to construction activities. With implementation of Mitigation Measure 4.12.2, potential impacts related to emergency access during construction would be less than significant.</p> <p>Operation. The emergency access to/from the site will be designed to meet all applicable City Codes and standards and would be subject to review by the City Fire and Police Departments for compliance with fire and emergency access standards and requirements. The redesign of Olympic Plaza will meet fire access lane standards. The final site plan will be subject to Site Plan Review by all relevant City Departments, and Site Plan Review approval by the Planning Commission. No changes to the existing parking lots (Pier Parking Lot and Beach Parking Lot) are included as part of the proposed Project. Therefore, operational impacts of the proposed Project to emergency access are considered less than significant and no mitigation is required.</p>	<p>Mitigation Measure 4.12.2: Construction Traffic Management Plan. Prior to the issuance of any demolition permits, the City Parks and Recreation Director, or designee, shall develop a Construction Traffic Management Plan for review and approval by the City Traffic Engineer. The plan shall be designed by a registered Traffic Engineer and shall address traffic control for any street closure, detour, or other disruption to traffic circulation and public transit routes and shall ensure that emergency vehicle access is maintained. The plan shall identify the routes that construction vehicles shall use to access the site, the hours of construction traffic, traffic controls and detours, and off-site staging areas. The plan shall also require that a minimum of one travel lane in each direction on Ocean Boulevard be kept open during construction activities. Access to Belmont Veterans’ Memorial Pier, the Shoreline Beach Bike Path, and the beach shall be maintained at all times. The Construction Traffic Management Plan shall also require that access to the pier, the bike path, and the beach be kept open during construction activities. The plan shall also require the City to keep all haul routes clean and free of debris including, but not limited to, gravel and dirt.</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>Threshold 4.12.6: Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.</p> <p>Less than Significant Impact. The proposed Project reconstructs the Belmont Pool at the existing location, which is near a public transit stop and a Class I bike path. Existing pathways through the passive park would be rerouted to East Olympic Plaza to allow for utilization of the proposed pedestrian and bicycle enhancements. The facility would continue to be accessible for users of transit, bicycle, and pedestrian modes of travel because the site design allows for pedestrian linkages. The proposed pool facility would continue to be accessed via Long Beach Transit bus service (Routes 121 and 131) as well as sidewalks and the Shoreline Beach Bike Path (Class I off-street bike path). Therefore, the Project would not conflict with adopted plans supporting alternative transportation. The proposed Project would have less than significant impacts relative to public transit, bicycle, or pedestrian facilities, and no mitigation is required.</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>
<p>Cumulative Traffic/Traffic Impacts.</p> <p>Less than Significant Impact. According to the City, one project was identified within the cumulative Project study area; the Leeway Sailing Center Pier Replacement. The City proposes to demolish and rebuild the existing Leeway Sailing Pier, Dock, and Gondola Shed Structure in its general same location and footprint. The existing gondola shed structure will be replaced in its general same location on the pier and will provide the same uses. A new</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>80-foot (ft) accessible gangway will connect the pier to a new 2,094-square-foot (sf) timber floating dock to improve Americans with Disabilities Act (ADA) access. This project is proposing to reconstruct the existing pier without expanding the size of the existing operation. Therefore, this project will not contribute new traffic to any of the study area intersections. Because no additional traffic from cumulative projects is anticipated at the study area intersections, no additional cumulative operational traffic impacts would occur. No mitigation is required.</p>		
<p>4.13: UTILITIES AND SERVICE SYSTEMS</p>		
<p>Threshold 4.13.1: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (RWQCB).</p> <p>Less than Significant Impact. Wastewater from the Project site would be treated at the Los Angeles County Sanitation District’s (LACSD) Joint Water Pollution Control Plant (JWPCP). LACSD’s JWPCP is responsible for adhering to Los Angeles Regional Water Quality Control Board (RWQCB) regulations as they apply to wastewater generated by the Project. As discussed in Section 4.8, Hydrology and Water Quality, due to the depth to groundwater (between 6 and 9 ft below ground surface [bgs]) and the anticipated depth of excavation (up to 13 feet [ft] below existing grade), there is a potential for the groundwater table to be encountered during excavation, which may require groundwater dewatering. As specified in Mitigation Measure 4.8.2, any groundwater dewatering during excavation would be conducted in accordance with the Los Angeles RWQCB’s Groundwater Discharge Permit, which would require testing and treatment (as</p>	<p>Refer to Mitigation Measure 4.8.2, under Section 4.8, Hydrology and Water Quality, above.</p>	

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>necessary) of groundwater encountered during groundwater dewatering prior to release to a storm drain. If groundwater used during construction of the proposed Project cannot meet discharge limitations specified in the Ground Water Discharge Permit, a permit would be obtained from LACSD to dispose of the groundwater in the sewer system. The groundwater would have to meet LACSD discharge limitations prior to discharge to the sewer system. In addition, LACSD would ensure they have adequate capacity to accommodate the discharged groundwater prior to issuing a permit. Therefore, since the capacity and discharge limitations of the treatment facility that serve the Project would not be exceeded, impacts regarding the ability of the treatment facility to treat and dispose of wastewater would be less than significant, and no mitigation is necessary.</p> <p>The proposed Project would comply with all applicable sections of Title 15, Public Utilities, of the City of Long Beach Municipal Code (LBMC), and as such, would generate wastewater flows typical of similar uses in the City. In addition, the Project site has been developed with a recreational pool facility for approximately 45 years and has been provided wastewater service during that time. Although the proposed Project expands the size of the existing pool structure, the proposed Project would not produce wastewater atypical of flows received at the LACSD’s JWPCP previously received from the Project site. Therefore, the proposed Project would not require or result in the construction of new wastewater treatment facilities or the expansion of existing facilities and would not result in a determination by the wastewater treatment provider that it has inadequate capacity to serve the</p>		

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>Project’s projected demand in addition to existing commitments. Thus, Project impacts related to exceeding wastewater treatment requirements of the applicable RWQCB are considered less than significant, and no mitigation is required.</p>		
<p>Threshold 4.13.2: Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Less than Significant Impact. Refer to the impact discussion under Threshold 4.13.4 and 4.13.5, below.</p>	<p>No mitigation is required.</p>	<p>Less than significant.</p>
<p>Threshold 4.13.3: Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.</p> <p>Less than Significant with Mitigation Incorporated. The proposed Project would result in a permanent decrease in impervious surface area of 0.5 acre (ac) and an increase of 0.5 ac in pervious area. As a result, in the proposed condition, the Project site would consist of 1.6 ac of impervious surface area and 4.2 ac of pervious surface. A decrease in impervious area would decrease the volume of runoff during a storm. The proposed Project would also include a comprehensive drainage system to convey on-site storm flows, including on-site detention and infiltration systems. A detailed hydrology report would be prepared for the proposed Project to ensure that the on-site storm drain facilities are designed in accordance with the requirement of the County of Los Angeles Department of Public Works Hydrology Manual to ensure that the runoff from the project site does not exceed existing conditions</p>	<p>Refer to Mitigation Measure 4.8.4, under Section 4.8, Hydrology and Water Quality.</p>	<p>Less than significant.</p>

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>(refer to Mitigation Measure 4.8.4 in Section 4.8, Hydrology and Water Quality). With implementation of Mitigation Measure 4.8.4, runoff from the Project site would not exceed the capacity of the existing storm water drainage system and the proposed Project would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Therefore, impacts related to new or expanded storm water facilities would be less than significant with implementation of Mitigation Measure 4.8.4.</p>		
<p>Threshold 4.13.4: Have sufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements.</p> <p>Less than Significant Impact. A short-term demand for water would occur during construction associated with excavation, grading, and other construction-related activities on the Project site. The temporary demand for water supplies for soil watering (fugitive dust control), clean up, masonry, and other related activities is not anticipated to result in water demand atypical of the size and scale of this construction Project. Therefore, impacts associated with short-term construction activities would be less than significant, and no mitigation is required.</p> <p>The Long Beach Water Department (LBWD) provided water services to the previous pool complex and pool facilities. Proposed water service to the Project site would include a connection to an existing 6-inch line which connects to an existing water main under East Olympic Plaza. No new off-site water mains or laterals</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>would be required to serve the proposed Project.</p> <p>The proposed Project would replace and update the former pool facility, resulting in an increase of 18,040 square feet (sf) of surface water (from a previous surface area of 18,410 sf total to the proposed 36,450 sf) and an additional 79,905 sf of building area, each of which would require a periodic increase in water service/supply. The increase in water demand associated with the proposed Project represents approximately 0.027 percent of the LBWD water supply in 2015. Given that the proposed Project is not changing the land use on the Project site and due to the relatively small increase in water demand, the increase in water demand attributable to the proposed Project is anticipated to fall within the available and projected water supplies of the 2010 Urban Water Management Plan (UWMP). The proposed Project would not necessitate new or expanded water entitlements or infrastructure as significant increases in water demands would not result from the proposed Project. In addition, like all new development in California, the proposed Project would comply with State law regarding water conservation measures, including pertinent provisions of Title 24 of the California Government Code (Title 24) regarding the use of water-efficient appliances. The proposed Project would also incorporate additional water conservation measures and would be built to meet the standards associated with the Leadership in Energy and Environmental Design (LEED) Gold rating, which includes features that would greatly enhance water conservation (see Section 3.0, Project Description, of this Draft EIR). Therefore, because it is anticipated that the increase in water demand attributable to the proposed</p>		

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<p>Project would fall within the available and projected water supplies of the 2010 UWMP and the proposed Project would incorporate additional water conservation features, impacts associated with the long-term operation of the proposed Project would be less than significant, and no mitigation is required.</p> <p>Furthermore, with the payment of fees pursuant to Chapter 18.23 of the Fire Code and the implementation of applicable building code requirements in accordance with the California Fire Code, including fire flow requirements, the City of Long Beach (City) Fire Department (LBFD) would be able to maintain acceptable performance ratios and fire flow requirements without requiring a new fire protection facility or expansion to the existing fire protection facility. Potential impacts related to fire flow would be less than significant, and no mitigation is required.</p>		
<p>Threshold 4.13.5: Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve projected demand in addition to the provider’s existing commitments.</p> <p>Less than Significant Impact. Construction. No significant increase in wastewater flows is anticipated as a result of construction activities on the Project site. As discussed above under Threshold 4.13.1, if dewatered groundwater cannot be disposed of in the storm drain system, a permit would be obtained from LACSD to dispose of the groundwater to the sewer system. Groundwater-dewatering activities would be temporary, and the volume of groundwater removed would not be substantial. In addition, LACSD would ensure they have adequate capacity to accommodate the discharged</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>

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<p>groundwater prior to issuing a permit. Therefore, during construction, potential impacts to wastewater treatment and wastewater conveyance infrastructure would be less than significant, and no mitigation is required.</p> <p>Operation. The anticipated increase in daily wastewater flow from the proposed Project would require approximately 0.33 percent of the existing available design capacity of the Anaheim Street Trunk Sewer and 0.27 percent of the existing available design capacity Joint Outfall C Unit Trunk Sewer. Both trunk sewers have sufficient capacity to accommodate anticipated wastewater flows from the proposed Project. As such, the proposed Project is not anticipated to cause a substantial increase in wastewater flows at a point where, and a time when, a sewer’s capacity is already constrained or that would cause a sewer’s capacity to become constrained. Impacts upon the local wastewater infrastructure system would, therefore, be considered less than significant, and no mitigation is required.</p> <p>Wastewater Treatment. The anticipated increase in daily wastewater flow that would result from Project implementation would represent 0.06 percent of the anticipated available daily capacity of the JWPCP. The anticipated increase in daily wastewater flow from the proposed Project could be accommodated within the existing design capacity of the JWPCP. The proposed Project would not substantially or incrementally exceed the current or future scheduled capacity of the JWPCP by generating flows greater than those anticipated. In addition, the projected wastewater flow calculations for the proposed Project do not account for the implementation of water conservation measures</p>		

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Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>proposed by the City, which would further reduce wastewater flows beyond the projections noted above. Potential Project impacts related to wastewater treatment would be less than significant, and no mitigation is required.</p>		
<p>Threshold 4.13.6: Be served by a landfill with insufficient permitted capacity to accommodate the project’s solid waste disposal needs.</p> <p>Less than Significant Impact. Construction of the new Belmont Pool facilities would generate construction and demolition waste, including, but not limited to, soil, wood, asphalt, concrete, paper, glass, plastic, metals, and cardboard. The total amount of construction and demolition of waste that would be generated by the proposed Project has not been determined; however, the Project is required to comply with the City’s 2007 Ordinance requiring that at least 60 percent of construction and demolition waste be recycled. In order to comply with the City’s Ordinance, the City would implement a Construction & Demolition (C&D) Debris Recycling Program. In accordance with the C&D Debris Recycling program, a Waste Management Plan (WMP) must be completed. The WMP would detail how the Project will meet the requirement to divert 60 percent of construction and demolition waste through recycling, salvage, or deconstruction. At the conclusion of the Project, a final report detailing the amount of reuse, recycling, and disposal actually generated from the proposed Project must be submitted and approved by the City’s Development Services Department.</p> <p>Solid waste generated by construction of the proposed Project</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>would be served by Southeast Resource Recovery Facility (SERRF), which currently has sufficient permitted capacity. Solid waste generated during construction of the proposed Project would not result in significant impacts related to landfill capacity or prevent compliance with federal, State, and local statutes and regulations related to solid waste. Therefore, impacts related to short-term construction and demolition waste would be less than significant, and no mitigation is required.</p> <p>The Project site was previously developed with the former Belmont Pool facilities. Based on the California Emission Estimator Model (CalEEMod), the total solid waste that would be generated during Project operation was estimated at 2.01 tons per day, which is an increase of 1.01 tons per day from the former uses.</p> <p>The Solid Waste Facility Permit from the County of Los Angeles Solid Waste Management Program for the SERRF authorizes the disposal of a maximum of 2,240 tons of waste per day. Currently, the SERRF accepts approximately 1,290 tons of waste per day. The anticipated increase in solid waste disposal attributable to the proposed Project would require 0.11 percent of the available daily disposal capacity at SERRF. The Mesquite Landfill is authorized to accept approximately 20,000 tons of waste per day. The anticipated increase in solid waste disposal attributable to the proposed Project would require 0.005 percent of the available daily disposal capacity at the Mesquite Landfill. Therefore, both SERRF and the Mesquite Landfill have adequate capacity to serve the proposed Project, and impacts related to operational solid waste</p>		

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>would be less than significant. No mitigation is required.</p> <p>Compliance with Federal, State, and Local Statutes and Regulations related to Solid Waste. Waste diversion for the proposed Project is anticipated to be consistent with other similar development within the City and divert a high percentage of trash from landfills based on compliance with standard City practices and regulations. In addition, the City would be required to implement a C&D program during construction. The City’s C&D Debris Recycling Program required at least 60 percent of C&D waste (e.g., concrete, metals, and asphalt) to be recycled.</p> <p>Additionally, the proposed Project would include on-site recycling containers and adequate storage area for such containers. All containers and storage areas on the Project site would be sized in accordance with the applicable provisions in the LBMC, including Sections 8.60.025 and 8.60.020, which establish standards and guidelines regarding refuse and recycling receptacles. Based on these considerations, the proposed Project would be consistent with the State Solid Waste Reuse and Recycling Access Act of 1991. No mitigation is required.</p>		
<p>Threshold 4.13.7: Comply with federal, State, and local statutes and regulations related to solid waste.</p> <p>Less than Significant Impact. Refer to the impact discussion under Threshold 4.13.6, above.</p>	<p>No mitigation is required.</p>	<p>Less than Significant.</p>
<p>Threshold 4.13.8: Include a new or retrofitted storm water treatment control Best Management Practice (BMP), (e.g., water quality treatment basin, constructed treatment wetland), the operation of which could result in significant</p>	<p>Refer to Mitigation Measure 4.8.3, under Section 4.8, Hydrology and Water Quality, above.</p>	<p>Less than Significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>environmental effects (e.g., increased vectors and odors). Less than Significant with Mitigation Incorporated. As discussed in Section 4.8, Hydrology and Water Quality, treatment Best Management Practices (BMPs) are anticipated to include biofiltration swales (bioswales), filtration strip, an underground detention basin, and a drywell. In addition, as specified in Mitigation Measure 4.8.3, a Standard Urban Storm Water Mitigation Plan (SUSMP) would be prepared for the proposed Project. The SUSMP would include an operations and maintenance plan for the bioswales, drywell, filtration strip, and an underground detention basin to ensure their long-term performance and prevent odor and vector issues from developing. Because the BMPs would be designed, inspected, and maintained as specified in Mitigation Measure 4.8.3 to prevent vectors and odors, impacts related to operation of storm water BMPs would be reduced to a less than significant level.</p>		
<p>Threshold 4.13.9: Result in substantial adverse physical impacts associated with the provision of new or physically altered energy transmission facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable levels of service.</p> <p>Less than Significant Impact.</p> <p>Electricity. New development on site would result in an increase in long-term demand for electricity. However, because the Project site is currently served by all utilities and has previously operated with the same land use as proposed, no new off-site service lines or substations would be required to serve the proposed Project.</p>	<p>No mitigation is required.</p>	<p>Less than significant.</p>

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>In May 2013, the California Energy Commission (CEC) published preliminary California Energy Demands for the years 2014 through 2024. Based on CEC projections for the Southern California Edison (SCE) service area in 2024, the anticipated increase in Project-related annual electricity consumption would represent approximately 0.0004 percent of the forecasted net energy load. Based on these estimates, sufficient transmission and distribution capacity exists, and off-site improvements would not be necessary.</p> <p>The supply and distribution of electricity to the proposed Project would not disrupt power to the surrounding area or adversely affect service levels because the Project involves the continuation of a previous land use. Therefore, impacts related to the provision of electricity services to the proposed Project would be less than significant, and the proposed Project would not require new or physically altered transmission facilities (other than those facilities needed for on-site distribution and hook-up into the existing system). Similarly, no significant impacts to local or regional supplies of electricity would occur as a result of the proposed Project, and no mitigation is necessary.</p> <p>Natural Gas. The proposed Project, which has a larger building area than the former pool complex, would result in an increase in long-term demand for natural gas. However, no new off-site service lines or substations would be required to serve the proposed Project.</p> <p>The proposed Project would generate an annual natural gas</p>		

Table 1.B: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Standard Conditions, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, Standard Conditions	Level of Significance After Mitigation
<p>demand of 0.00229 billion cubic feet (bcf) per year, which is an increase of 0.00133 bcf per year. According to the 2014 California Gas Report, the City’s gas use is expected to remain relatively constant, increasing from 9.0 bcf in 2014 to 9.6 bcf by 2035. Therefore, the increase in annual natural gas demand associated with the proposed Project would be a negligible percent of the estimated available withdrawal capacity of Long Beach Gas & Oil (LBGO) in 2035. Consequently, the supply and distribution of natural gas within the area surrounding the proposed Project would not be reduced or inhibited as a result of the proposed Project, and levels of service to off-site users would not be adversely affected. Furthermore, the proposed Project would reduce natural gas consumption through the installation of high-efficiency direct fire heating and pool blankets.</p> <p>Therefore, impacts related to the provision of natural gas services to the proposed Project would be less than significant, and the proposed Project would not require new or physically altered transmission facilities (other than those facilities needed for on-site distribution and hook-up into the existing system). Similarly, no significant impacts to local or regional supplies of natural gas would occur as a result of the proposed Project, and no mitigation is required.</p>		

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2.0 INTRODUCTION

This Draft Environmental Impact Report (EIR) has been prepared to evaluate environmental impacts associated with the proposed Belmont Pool Revitalization Project (proposed Project) in the City of Long Beach (City). The City is the “public agency which has the principal responsibility for carrying out or approving the project” and, as such, is the “Lead Agency” for this project under the California Environmental Quality Act of 1970 (CEQA) (*State CEQA Guidelines for Implementation of CEQA* Section 15367). CEQA requires the Lead Agency to consider the information contained in the EIR prior to taking any discretionary action. This Draft EIR is intended to serve as an informational document to be considered by the City and the Responsible Agencies during deliberations on the proposed Project. The anticipated project approvals associated with the proposed Project are described in Section 3.0, Project Description.

The City prepared an Initial Study (IS) for the proposed Project to determine whether a Categorical Exemption (CE), a Mitigated Negative Declaration (MND), or an EIR would be the appropriate documentation for compliance with CEQA (Public Resources Code [PRC] Section 21000 et seq.) for the proposed Project. The analysis contained in the IS found that the project may have a significant effect on the environment unless mitigation is included to lessen or avoid the environmental effects of the project. The City staff determined that an EIR was the appropriate environmental document to be prepared for the proposed Belmont Pool Revitalization Project. The IS was prepared and circulated, along with a Notice to Prepare (NOP) an EIR, for public review from April 18 to May 17, 2013. Subsequent to issuance of the IS/NOP, changes were made to the site design that required the City to revise and reissue the IS. The revised IS was recirculated for public review from April 9 to May 8, 2014.

This Draft EIR was prepared in accordance with CEQA (PRC Section 21000 et seq.) and the *State CEQA Guidelines* (California Code of Regulations [CCR], Title 14, Section 15000 et seq.). This Draft EIR also complies with the procedures established by the City for implementation of CEQA.

Questions regarding the preparation of this document and the City review of the proposed Project should be referred to the following:

City of Long Beach
Department of Development Services
333 West Ocean Boulevard, 5th Floor
Long Beach, California 90802
Attention: Craig Chalfant, City Planner
(562) 570-6368
craig.chalfant@longbeach.gov

2.1 PURPOSE AND TYPE OF EIR/INTENDED USES OF THE EIR

This Draft EIR has been prepared to evaluate environmental impacts that may result from implementation of the proposed Project. As the Lead Agency, the City has the authority for preparation of this Draft EIR and, after the comment/response process, certification of the Final EIR and approval of the proposed Project as described in this Draft EIR.

The City and Responsible Agencies have the authority to make decisions on discretionary actions relating to development of the proposed Project. As stated previously, this Draft EIR is intended to serve as an informational document to be considered by the City and Responsible Agencies during deliberations on the proposed Project. This EIR evaluates and mitigates a reasonable worst-case scenario of potential impacts associated with the proposed Project.

This EIR will serve as a Project EIR pursuant to *State CEQA Guidelines* Section 15161. According to Section 15161 of the *State CEQA Guidelines*, a Project EIR is appropriate for specific development projects in which information is available for all phases of the project, including planning, construction, and operation.

As previously mentioned, the City is the Lead Agency for this Project under CEQA (*State CEQA Guidelines* Section 15367) and as such, must consider the information contained in the EIR prior to taking any discretionary action. This EIR provides information to the Lead Agency and other public agencies, the general public, and decision-makers regarding the potential environmental impacts from construction and operation of the proposed Project. The purpose of the public review of the EIR is to evaluate the adequacy of the environmental analysis in terms of compliance with CEQA. Section 15151 of the *State CEQA Guidelines* states the following regarding standards from which adequacy is judged:

“An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among experts. The courts have not looked for perfection but for adequacy, completeness, and a good faith effort at full disclosure.”

Under CEQA (PRC Section 21002.1[a]):

“The purpose of an environmental impact report is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided.”

As previously discussed in Chapter 1.0, Executive Summary, an EIR is the most comprehensive form of environmental documentation identified in CEQA and the *State CEQA Guidelines* and provides the information needed to assess the environmental consequences of a proposed project. EIRs are intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a proposed project that has the potential to result in significant, adverse environmental impacts.

2.2 PUBLIC REVIEW PROCESS

In compliance with the *State CEQA Guidelines*, the City has taken steps to maximize opportunities for the public and public agencies to participate in the environmental review process. The City conducted the scoping process, issued an NOP and an IS for the proposed Project, and determined that an EIR was required to evaluate the potentially significant environmental effects of the proposed Project and related actions.

2.2.1 Notice of Preparation

On April 18, 2013, an NOP was distributed by the City for the proposed Belmont Pool Revitalization Project. The State of California Clearinghouse (SCH) issued a project number for the Draft EIR (SCH No. 2013041063). In accordance with *State CEQA Guidelines* Section 15082, the NOP was circulated to the agencies and individuals listed in Appendix A from April 18, 2013, through May 17, 2013, during which time written comments were solicited pertaining to environmental issues/topics that the Draft EIR should evaluate.

Subsequent to issuance of the IS/NOP, changes were made to the site design that required the City to revise and reissue the NOP and the IS. The revised NOP and IS were recirculated for public review from April 9 to May 8, 2014, during which time additional written comments were solicited and received. The recirculated NOP and responses to the NOP from agencies, organizations, and individuals are included in Appendix A of this EIR. Appendix A contains copies of the recirculated NOP comment letters that were received. Written responses to the NOP issued on April 18, 2013, were received from the following:

- South Coast Air Quality Management District
- Los Angeles County Department of Public Works
- County Sanitation Districts of Los Angeles County

Written responses to the NOP reissued on April 9, 2014, were received from the following:

- South Coast Air Quality Management District
- County Sanitation Districts of Los Angeles County
- Los Angeles County Metropolitan Transportation Authority
- Native American Heritage Commission
- Lucy Johnson (member of the public)

2.2.2 Areas of Controversy

Key environmental issues and concerns raised in the responses to the NOP included: (1) potential for increased traffic; (2) potential for discovery of cultural resources; (3) potential for air quality impacts; (4) increases in wastewater discharges; (5) potential for impacts to storm drain facilities; and (6) concerns of pool design and amenities meeting the overall desires of the swimming community.

Please note that this is not an exhaustive list of areas of controversy but rather key issues that were raised during the scoping process. The EIR addresses each of these areas of concern or controversy in detail, examines Project-related and cumulative environmental impacts, identifies significant adverse environmental impacts, and proposes mitigation measures designed to reduce or eliminate potentially significant impacts. Appendix A includes the recirculated NOP and copies of written comments received.

On June 17, 2014, the City Council conducted a study session on the programmatic requirements and conceptual plans for the proposed Project. The City Council suggested that a community stakeholder committee be convened to prioritize optional components of the conceptual plan for the City Council to consider for approval. The Stakeholder Advisory Committee consisted of representatives from a number of different stakeholders, including residents, business interests, aquatics community, competitive users, recreational users, diving, water polo, swimming, and representatives for the community at large. The Stakeholder Advisory Committee conducted three workshops in July and August 2014 and explored various issues related to the pool in a collaborative discussion. The Stakeholder Committee recommended a conceptual design and held a public meeting on September 17, 2014 at the Rogers Middle School. Approximately 150 to 200 people attended and asked questions and provided comments. Additionally, draft input was sought from the California Coastal Commission (CCC) local staff and, upon initial review the local staff of the CCC was supportive of the direction of the conceptual facility design and emphasized their preference for the facility to have a primarily public recreation focus with the availability to accommodate private/competitive events when public demand is low. Formal comments and approval by the Coastal Commission will occur later in the process. Another public City Council meeting was held October 21 2014, where the City Council unanimously approved the recommended programmatic requirement recommended by City staff, and based primarily on the recommendations of the Stakeholder Committee. Based on input from the City Council, Stakeholders Advisory Committee, the general public, and the CCC, the major common issues of concern raised included: (1) loss of park space; (2) wildlife; (3) parking; (4) noise; (5) aesthetics; (6) geologic stability (7) design features; and (8) cost.

Additionally, the EIR addresses each of the areas of concern addressed in the NOP comment period, examines Project-related and cumulative environmental impacts, identifies significant adverse environmental impacts, and proposes mitigation measures designed to reduce or eliminate potentially significant impacts of the proposed Project.

2.2.3 Public Review Period

This EIR is being distributed to numerous public agencies and other interested parties for review and comment. The EIR is also available at the following locations throughout the City and on the City's website.¹

City of Long Beach
Development Services/Planning Bureau
333 West Ocean Boulevard, 5th Floor
Long Beach, California 90802

¹ Long Beach Development Services. Website: [http:// www.lbds.info/planning/environmental_planning/environmental_reports.asp](http://www.lbds.info/planning/environmental_planning/environmental_reports.asp).

Long Beach Main Library
101 Pacific Avenue
Long Beach, California 90802
For hours of operation, call (562) 570-7500

Bay Shore Neighborhood Library
195 Bay Shore Avenue
Long Beach, California 90803
For hours of operation, call (562) 570-1039

All comments received from agencies and individuals on the EIR will be accepted during the public review period, which will not be less than 45 days in compliance with CEQA. All comments on the EIR should be sent to the following City contact person:

Craig Chalfant, City Planner
City of Long Beach,
Development Services/Planning Bureau
333 West Ocean Boulevard, 5th Floor
Long Beach, California 90802
Phone: (562) 570-6368
Email: craig.chalfant@longbeach.gov

Following the close of the review period, the City will prepare responses to all comments and will compile these comments and responses into a Final EIR. Responses to comments submitted on the EIR by agencies will be provided to those agencies at least 10 days prior to certifying the Final EIR. The City will make findings regarding the extent and nature of the impacts as presented in the Final EIR. The Final EIR will need to be certified as complete by the City prior to making a decision to approve or deny the Project. Public input is encouraged at all public hearings before the City.

2.3 SCOPE OF THIS EIR

As required by *State CEQA Guidelines* Section 15128, this EIR must identify the effects of the proposed Project determined not to be significant. The scoping process for this EIR included the preparation of an IS. Per *State CEQA Guidelines* Section 15063, the City prepared an IS to determine whether the Project could have a significant effect on the environment. The City determined that the proposed Project may have a significant impact on the environment and, as explained in Section 2.2.1 of this EIR, issued an NOP soliciting comments from Responsible and Trustee Agencies and other interested parties, including members of the public. In addition to identifying potentially significant impacts of the Project that required additional study, the IS also identified effects determined not to be significant consistent with *State CEQA Guidelines* Section 15063(c)(3)(B). Impacts that were determined to be less than significant were discussed and evaluated in the IS contained in Appendix A of this EIR. The analysis determined that the proposed Project would result in no impacts to agricultural resources, public services, population and housing, or mineral resources.

For this reason, potential impacts related to agricultural resources, public services, population and housing, and mineral resources are discussed solely in Appendix A of this EIR. The City's IS and Environmental Checklist Form are discussed in Chapter 4.0 of this document, and a copy of the IS and Environmental Checklist for the proposed Project are included in Appendix A of this EIR.

2.4 FORMAT OF THE EIR

Pursuant to *State CEQA Guidelines* Section 15120(c), this EIR contains the information and analysis required by Sections 15122 through 15131. Each of the required elements is covered in one of the sections described below.

2.4.1 Section 1.0: Executive Summary

Section 1.0 contains the Executive Summary of the EIR, listing all significant Project impacts, mitigation measures that have been recommended to reduce any significant impacts of the proposed Project, and the level of significance of each impact following mitigation. The summary is presented in a matrix (tabular) format.

2.4.2 Section 2.0: Introduction

Section 2.0 contains a discussion of the purpose and intended use of the EIR, a background on Project initiation and the NOP, and areas of controversy known to the Lead Agency, including issues raised by the public. A summary discussion of effects found not to be significant and, therefore, not included in the EIR analysis is also included in this section.

2.4.3 Section 3.0: Project Description

Section 3.0 includes a discussion of the Project's geographical setting, the history of the Project site, and the Project's goals, objectives, characteristics, and components.

2.4.4 Section 4.0: Environmental Analysis, Impacts, and Mitigation Measures

Section 4.0 includes an analysis of the Project's environmental impacts. It is organized into topical sections, including Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions, Hazardous Materials, Hydrology and Water Quality, Land Use, Noise, Recreation, Transportation and Circulation, and Utilities and Service Systems. The environmental setting discussions describe the "existing conditions" of the environment on the Project site and in the vicinity of the site as they pertain to the environmental issues being analyzed (Section 15125 of the *State CEQA Guidelines*).

The environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant (Section 15125[a] of the *State CEQA Guidelines*). In this case, the City, as the Lead Agency under CEQA, has used its discretion with regard to baseline in order to note that the existing pool had been operational for over 45 years, and the closure and demolition of the permanent facility was due to public safety concerns. Furthermore,

it was well-known via the City's website and public discussion that a rehabilitation of the Belmont Pool was being pursued by the City. Had the pool not been closed in an emergency, the EIR for the rehabilitation Project would have occurred while the pool was still operational. Therefore, the City finds that the pre-closure operational levels of the Belmont Pool constitute the appropriate baseline for the CEQA analysis.

The project impact discussions identify and focus on the significant environmental effects of the proposed Project. The direct and indirect significant effects of the project on the environment are identified and described, giving due consideration to both the short-term and long-term effects, as necessary (Section 15126.2[a] of the *State CEQA Guidelines*).

Chapter 4.0 also includes within each environmental impact analyzed, a discussion of the cumulative effects of the Project when considered in combination with other projects, as required by Section 15130 of the CEQA Guidelines. Cumulative impacts are based on the build out of the Project and the surrounding area, including all other known projects in the surrounding area.

The discussions of mitigation measures identify and describe feasible measures that could minimize or lessen significant adverse impacts for each significant environmental effect identified in the EIR (Section 15126.4 of the *State CEQA Guidelines*). The level of significance after mitigation is reported in each section. Unavoidable adverse effects are identified where mitigation is not expected to reduce the effects to less than significant levels.

2.4.5 Section 5.0: Alternatives to the Proposed Project

In accordance with *State CEQA Guidelines* Section 15126.6, the alternatives discussion in Section 5.0 describes a reasonable range of alternatives that could feasibly attain the basic objectives of the Project and that are capable of eliminating any significant adverse environmental effects or reducing them to a less than significant level. Alternatives analyzed in Section 5.0 include the No Project/No New Development Alternative, the Maintain Temporary Pool with Ancillary Uses Alternative, the Outdoor Diving Well Alternative, a Reduced Project - No Outdoor Components Alternative, and Reduced Project - No Diving Well and No Outdoor Components Alternative.

2.4.6 Section 6.0: Long-Term Implications of the Project

Section 6.0 includes CEQA-mandated discussions required by Section 15126.2 of the *State CEQA Guidelines* regarding: (a) significant irreversible environmental changes that would result from implementation of the proposed Project, (b) significant adverse environmental impacts for which either no mitigation or only partial mitigation is feasible, and (c) growth-inducing impacts of the proposed Project.

2.4.7 Section 7.0: Mitigation Monitoring and Reporting Program

PRC Section 21081.6 requires that agencies adopt a mitigation monitoring and reporting program for any project for which findings have been made pursuant to PRC Section 21081. Section 7.0 provides a list of all proposed Project mitigation measures, defines the party responsible for implementation of those measures, and identifies the timing for implementation of each control measure.

2.4.8 Sections 8.0 and 9.0: Report Preparers and References

Sections 8.0 and 9.0, respectively, provide the EIR preparers, the technical report authors, and the organizations and persons contacted during preparation of the EIR; and the references used by the authors.

2.5 INCORPORATION BY REFERENCE

As permitted in Section 15150 of the *State CEQA Guidelines*, an EIR may reference all or portions of another document that is a matter of public record or is generally available to the public. Information from the documents that have been incorporated by reference has been briefly summarized in the appropriate sections of this EIR, along with a description of how the public may obtain and review these documents. These documents include:

- City of Long Beach General Plan, City of Long Beach, as amended
- City of Long Beach Municipal Code
- Local Coastal Program (LCP), City of Long Beach, 1980
- State Tidelands Grant, City of Long Beach
- City of Long Beach Parks, Recreation and Marine Strategic Plan, City of Long Beach, 2003

Documents that are incorporated by reference are available for review at the City of Long Beach, Department of Development Services, 333 West Ocean Boulevard, 5th Floor, Long Beach, California 90802.

3.0 PROJECT DESCRIPTION

3.1 PROJECT LOCATION AND SITE DESCRIPTION

The Belmont Plaza Olympic Pool (Belmont Pool) site is operated by the City of Long Beach (City) Department of Parks, Recreation, and Marine and is located in the Belmont Shore Beach Park in southeast Long Beach (see Figure 3.1). Due to several functional problems with the former pool (pool leaks, bulkhead issues, concerns regarding concrete cracking and corrosion, rust on concrete, etc.), the City implemented a needs assessment and analyses to determine the best course of action for the long term maintenance and repair of the facility. During the course of the analysis, the Building Official, based on the report from the structural engineering firm (TMAD Taylor and Gaines), determined that the natatorium was at risk for failure during a moderate earthquake event, resulting in the closure of the facility. The former Belmont Pool facility was closed to the public on January 13, 2013, as a result of these substandard seismic and structural conditions, and was demolished in February 2015 because it was determined to be an imminent threat to public safety.

The area of the Project site that contained the former Belmont Pool facility was backfilled, compacted, and, at the request of the California Coastal Commission (CCC), covered with a minimal sand “blanket” to temporarily blend with the adjacent beach. This backfilled sand area is temporary and is the location where the proposed Belmont Pool facility will be constructed. Signs indicating the City’s intent to redevelop the site with the proposed Project are installed on the project site. The demolition of the structure was conducted under an emergency permit (Statutory Exemption SE14-01); therefore, this Draft Environmental Impact Report (EIR) does not analyze the demolition of the former Belmont Pool facility.

3.1.1 Former Belmont Pool Characteristics

The former Belmont Pool facility was located on the 5.8-acre Project site and totaled 45,595 square feet (sf) of building area. The facility provided a total of 18,410 sf of indoor and outdoor water surface area and reached a maximum of 60 feet (ft) in height. As shown in Figure 3.2, the former Belmont Pool facility consisted of five main areas: (1) the indoor pool; (2) the restaurant/banquet hall; (3) the locker room/aquatics administration office; (4) two outdoor pools (swimming and wading); and (5) the passive park. The two outdoor pools and the passive park are still currently open to the public. The passive park includes a pedestrian/bicycle path (separate lanes), a bicycle rack, and landscaping in the form of lawn and mature trees.

3.1.2 Temporary Pool

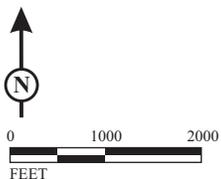
In order to provide aquatic services during the planning and construction of the proposed Project, the City had previously approved the installation and use of a temporary outdoor pool located immediately east of the Project site in the western portion of the Beach Parking Lot (see Figure 3.2).

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FIGURE 3.1

LSA



SOURCE: USGS 7.5' Quad - Long Beach, California

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Belmont Pool Revitalization Project
Project Vicinity Map

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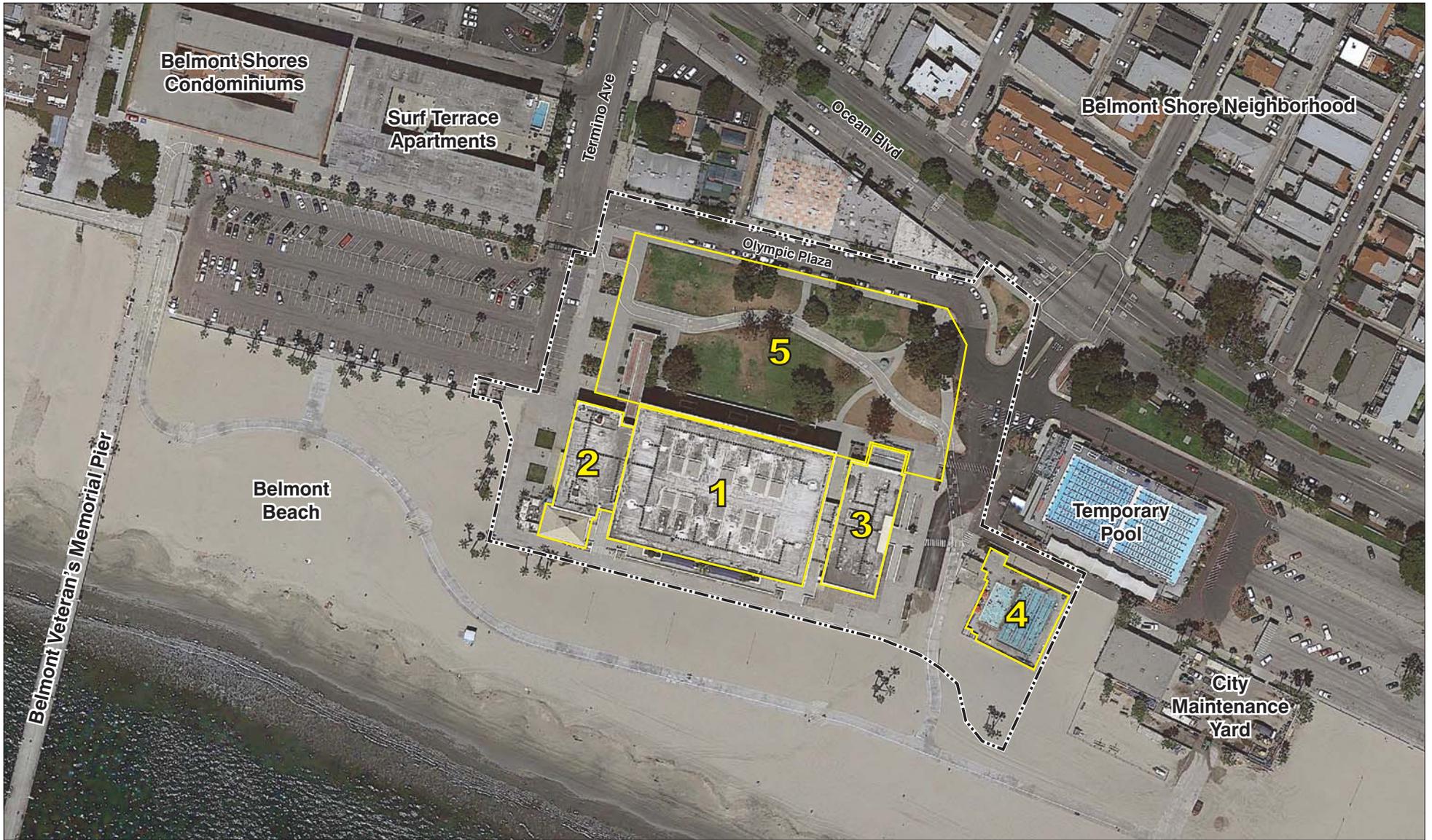


FIGURE 3.2

LSA

LEGEND

- Project Site
- 1** - Indoor Pool
- 2** - Restaurant/Banquet Hall
- 3** - Locker Room/Aquatics Administration Trailer
- 4** - Outdoor Pool
- 5** - Open Space/Passive Park



SOURCE: Google Earth

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Belmont Pool Revitalization Project
Former Pool Facility

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The temporary pool was installed and opened on December 19, 2013, in order to provide swimming facilities while the permanent facility is under construction. Although the temporary pool does have limitations on the number of years the existing permit can be extended, the temporary pool is expected to remain open until the proposed Project begins operations. Immediately following the removal of the temporary pool, the Beach Parking Lot will be resurfaced and restored as a part of a separate project.¹

3.1.3 Existing Access and Parking

Patrons and visitors to Belmont Pool access the site via walking and bicycling (in the case of local residents), car, public buses (Long Beach Transit Route 121 has stops near the intersection of Termino Avenue/Ocean Boulevard), and team buses for certain competitions. Pedestrian access is from both the front (passive park) and from the beach. Belmont Pool has no dedicated parking lot, but vehicles may park in either of two pay lots; the Belmont Veteran's Memorial Pier Parking Lot (Pier Parking Lot) northwest of the Pool facility or the Beach Parking Lot southeast of the Project site.

The Pier Parking Lot is smaller and generally more heavily utilized than the Beach Lot, and existing signage promotes use of the Beach Parking Lot for swim meets. Access to the Pier Parking Lot is via South Termino Avenue. Access to the Beach Parking Lot is from Ocean Boulevard. The two parking lots are connected by East Olympic Plaza, which is located north of the pool and the passive park (see Figure 3.2).

3.1.4 Surrounding Land Uses

The land uses surrounding the site as shown on Figure 3.2 include the following:

- **North:** Several businesses are located along the northern side of East Olympic Plaza, including Belmont Shores Children's Center, a vacant commercial building, the former Yankee Doodles restaurant which has been entitled for a private sports club/gym, a dog wash, and Chuck's Coffee Shop. The Belmont Shore neighborhood is located across Ocean Boulevard to the northeast and includes predominantly single-family and multifamily residential uses with some retail/restaurant uses.
- **East:** The City of Long Beach beach maintenance yard, the temporary outdoor pool, Rosie's dog beach, a boat launch, kite surfing, and the Beach Parking Lot are located to the east and southeast. The maintenance yard is used for storage of City maintenance vehicles and equipment used to maintain the City's beach and waterway areas.
- **South:** The Pacific Ocean, the beach, bicycle and pedestrian pathways, and volleyball courts are to the south.
- **West:** Belmont Veterans Memorial Pier, Belmont Beach, and the Pier Parking Lot are to the west, and the Surf Terrace Apartments, Belmont Shores Condominiums, and a Jack in the Box restaurant are located to the northwest.

¹ Pursuant to conditions of Categorical Exemption CE 10-13.

3.2 CITY OF LONG BEACH LAND USE AND ZONING DESIGNATIONS

As shown in Figure 3.3, the Project site consists of both “Open Space and Parks” and “Mixed Uses” land use designations. The Open Space and Parks use (Land Use Designation No. 11 in the Land Use Element of the General Plan), which overlays the building footprint and a portion of the adjacent passive park, is intended to provide for “preserving natural habitat areas and promoting the mental and physical health of the community through recreational, cultural, and relaxation pursuits. Parks are characterized by open spaces devoted to leisure activities including the enjoyment of nature, wildlife, cultural heritage, sports, and similar activities.” The portion of the Project area located on the northern portion of the Project site is designated as Mixed-Uses (Land Use Designation No. 7 in the Land Use Element of the General Plan). The Mixed-Uses land use designation accommodates a wide range of uses and is intended to provide for uses in large activity centers of the City. Land uses in this designation include retail, offices, medical facilities, higher-density residences, visitor-serving facilities, personal and professional services, and recreational facilities. As discussed in Section 4.9, Land Use, of this Draft EIR, the proposed Project would be consistent with both land use designations.

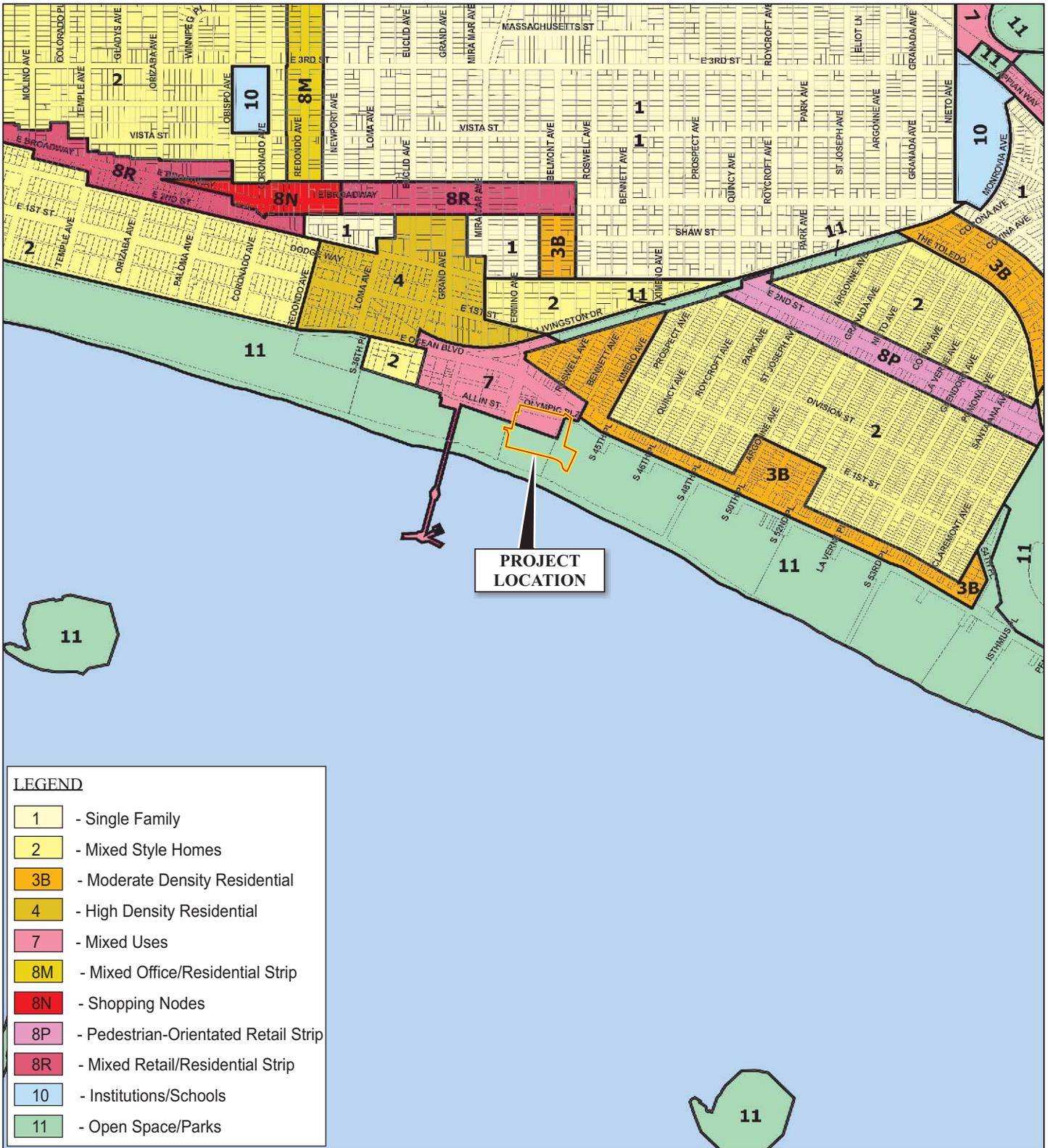
As shown in Figure 3.4, the Project site includes areas zoned Park (P) and Belmont Pier Planned Development District (PD-2, Subarea 1). The P zone generally matches the area for the Open Space and Parks land use designation, and the PD-2 zone generally matches the area for the Mixed-Uses land use designation. The P zoning designation encompasses the southern portion of the Project site, includes the building footprint, and was established to set aside and preserve publicly owned natural and open areas for active and passive public use for recreational, cultural, and community service activities. The PD-2 zoning designation encompasses the northern portion of the Project site, including the passive park, and was established to encourage a joint public and private effort to revitalize this underutilized area containing the significant public resource of the Belmont Pier and Olympic Plaza Pool. As discussed in Section 4.9, Land Use, of this Draft EIR, the proposed Project would require a height variance approval, as well as the approval of a Conditional Use Permit for the restaurant, in order to be consistent with the site’s zoning requirements.

3.3 PROJECT HISTORY AND BACKGROUND

3.3.1 Notable Aquatic Events

In November 1961, the Long Beach City Council voted to place an item in the February 1962 municipal election for the use of Tidelands funds for the construction of the “Belmont Plaza Beach Center” (now Belmont Plaza) project, which included a swimming pool, wading pool, and public parking lot. Proposition 7 was approved by the voters in February 1962, clearing the way for the use of the site for public purposes. The City Council ratified the election results in March 1962, paving the way for site acquisition and eventual construction of the “Belmont Plaza Beach Center.”

In January 1967, plans were approved for a group of structures at Belmont Plaza, a site west of the Belmont Pier on the beach in Belmont Shore. The Belmont Pool opened in 1968 in time for the United States (U.S.) Olympic swimming trials. The facility hosted both the 1968 and the 1976 U.S. Olympic swimming trials, as well as the 1974 and 1978 National Collegiate Athletic Association (NCAA) swimming championships. Mark Spitz, Don Schollander, and Charles Hickox set men’s records during these trials. After the 1968 trials, the Belmont Pool facility was opened to the public for recreational purposes.



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FIGURE 3.3



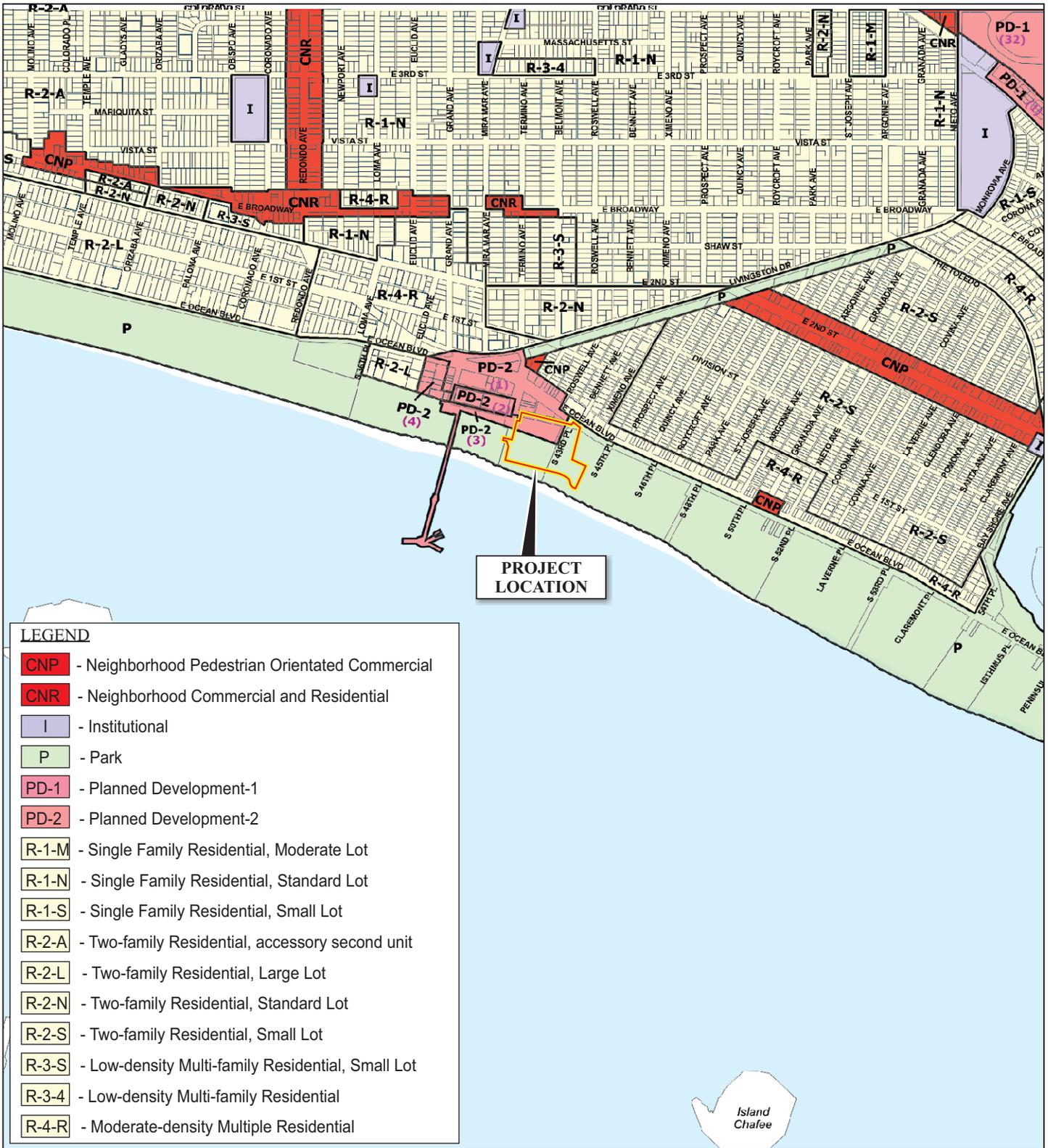
Belmont Pool Revitalization Project

General Plan Land Use Designations

SOURCE: Department of Planning & Building & Department of Technology Services, GIS Revised: November, 1998

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LEGEND

- CNP** - Neighborhood Pedestrian Orientated Commercial
- CNR** - Neighborhood Commercial and Residential
- I** - Institutional
- P** - Park
- PD-1** - Planned Development-1
- PD-2** - Planned Development-2
- R-1-M** - Single Family Residential, Moderate Lot
- R-1-N** - Single Family Residential, Standard Lot
- R-1-S** - Single Family Residential, Small Lot
- R-2-A** - Two-family Residential, accessory second unit
- R-2-L** - Two-family Residential, Large Lot
- R-2-N** - Two-family Residential, Standard Lot
- R-2-S** - Two-family Residential, Small Lot
- R-3-S** - Low-density Multi-family Residential, Small Lot
- R-3-4** - Low-density Multi-family Residential
- R-4-R** - Moderate-density Multiple Residential

LSA



FIGURE 3.4

Belmont Pool Revitalization Project

Zoning Designations in the Project Vicinity

SOURCE: Development Services & Department of Technology Services, July 2011

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Throughout the lifespan of the former Belmont Pool facility, several major swimming records were broken. During the 1975 U.S. Olympic development meet, Shirley Babashoff took first place in the 400 meter (m) freestyle event, and in 1976, she broke the record for the women's 100 m freestyle competition in Olympic trials at the Belmont Pool. Tom Shields set the current NCAA record in the 200 m butterfly in March 2011 with a time of 1:40.31, while Vlad Morozov set the current national high school record in the 50 m freestyle with a time of 19.43 seconds in May 2010.

The former Belmont Pool facility served as a training site during the 1984 Olympic Games held in Los Angeles, and was proposed as the site for diving in the Los Angeles bid for the 2012 Olympic Games. Francis Heusel and Frank Homolka, noted Long Beach architects, and Bole and Wilson, local engineers, designed the complex, which included an Olympic-size indoor pool, a community/private event building, and a locker room. The former building design was characterized as Greek Modern architecture.

3.3.2 Proposed Project Planning

The former indoor Belmont Pool was closed to the public on January 13, 2013, as a result of substandard seismic and structural conditions. A temporary outdoor pool was constructed in the Beach Parking Lot and opened to the public on December 19, 2013. In February 2015, the Belmont Pool facility was demolished to alleviate an imminent public safety threat, as described above.

On June 17, 2014, the City Council conducted a study session on the programmatic requirements and conceptual plans for the proposed Project. The City Council suggested that a community stakeholder committee be convened to prioritize optional components of the conceptual plan for the City Council to consider for approval. The Stakeholder Advisory Committee consists of representatives from a number of different stakeholders, including residents, business interests, aquatics community, competitive users, recreational users, diving, water polo, swimming, and representatives for the community at large. The Stakeholder Advisory Committee conducted three workshops in July and August 2014 and explored various program variations related to the pool through a collaborative programming process. Once the Stakeholder Committee recommended a conceptual program, a public meeting was held on September 17, 2014, at Rogers Middle School. Approximately 150 to 200 people attended and provided comments. Additionally, input was sought from the California Coastal Commission (Coastal Commission) staff. Upon initial review at a meeting conducted at Long Beach City Hall on August 21, 2014, the Coastal Commission expressed general support of the conceptual programming and emphasized its preference for the facility to maintain a primarily public recreation focus with availability to accommodate private/competitive events when public demand is low. Based on input from the City Council, the Stakeholders Advisory Committee, the general public, and Coastal Commission staff, the Project program was designed as is described and analyzed in this Draft EIR.

3.4 PROJECT CHARACTERISTICS

The proposed Project would replace the former Belmont Pool facility and provide the City with a revitalized and modern pool complex as depicted in Figure 3.5. The Project proposes the construction and operation of an approximately 125,500 sf pool complex that includes indoor and outdoor pool components (see Figures 3.6a through 3.6d) and an approximately 1,500 sf outdoor cafe. Permanent

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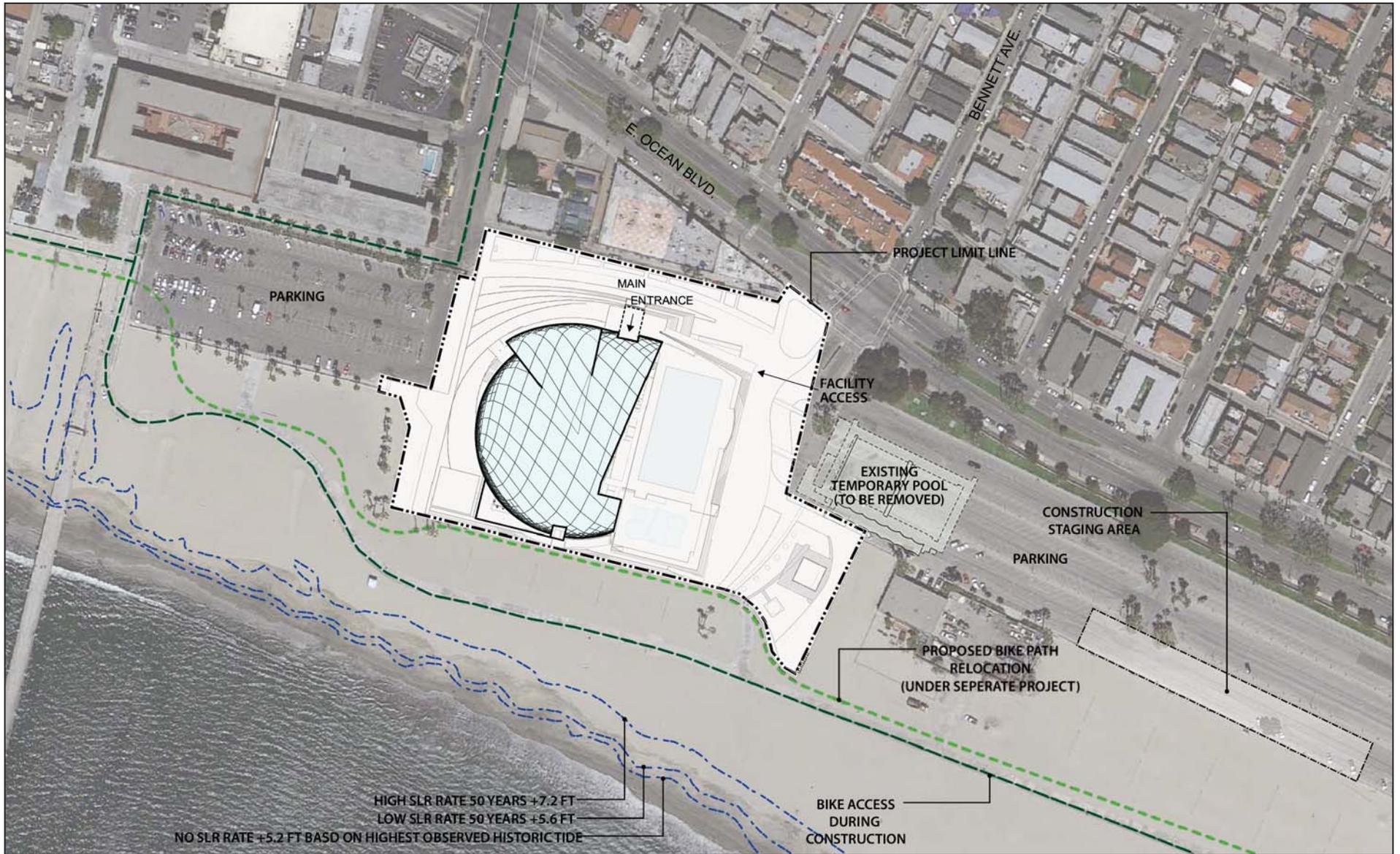


FIGURE 3.5

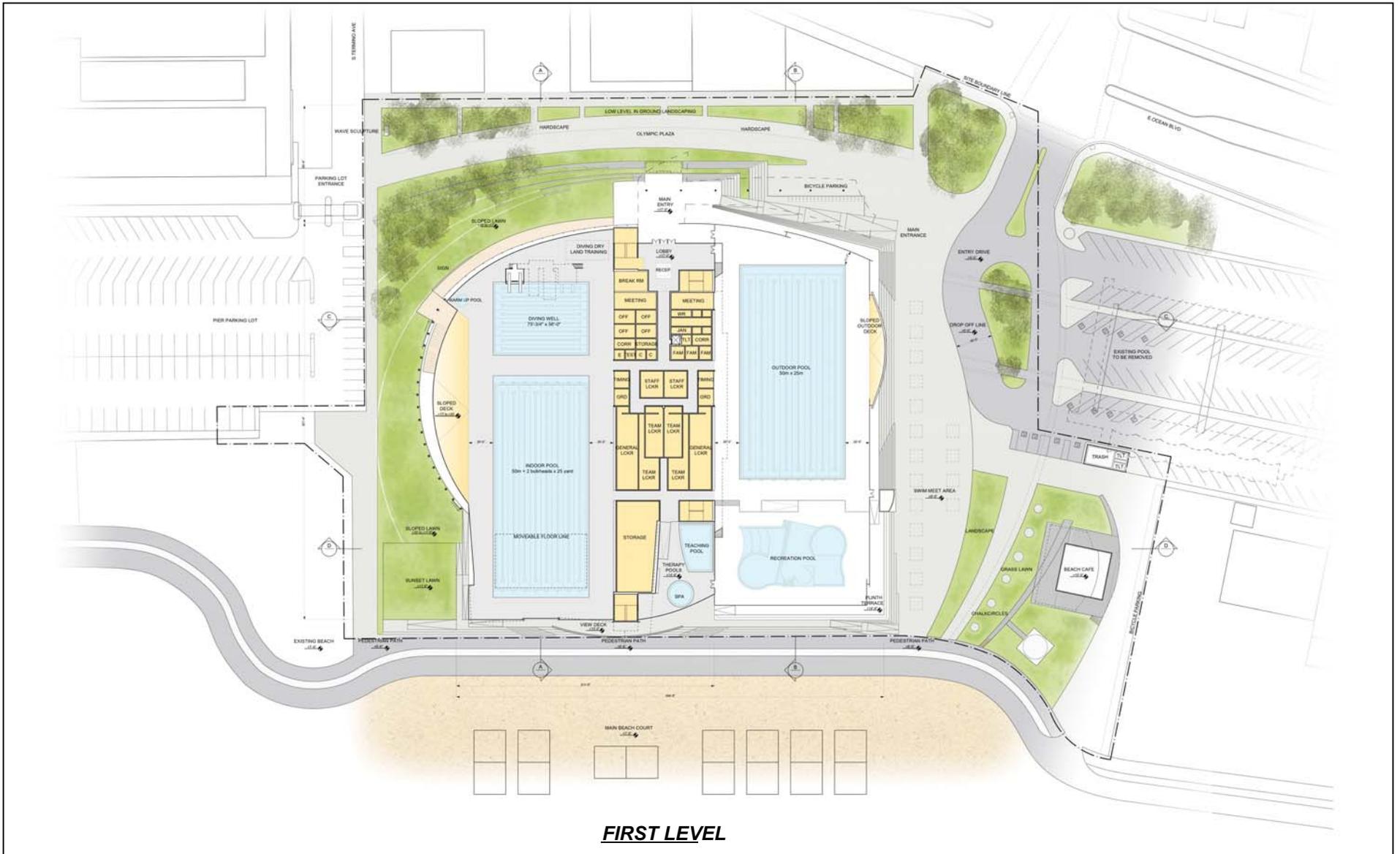
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SOURCE: Hastings+Chivetta

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FIGURE 3.6a

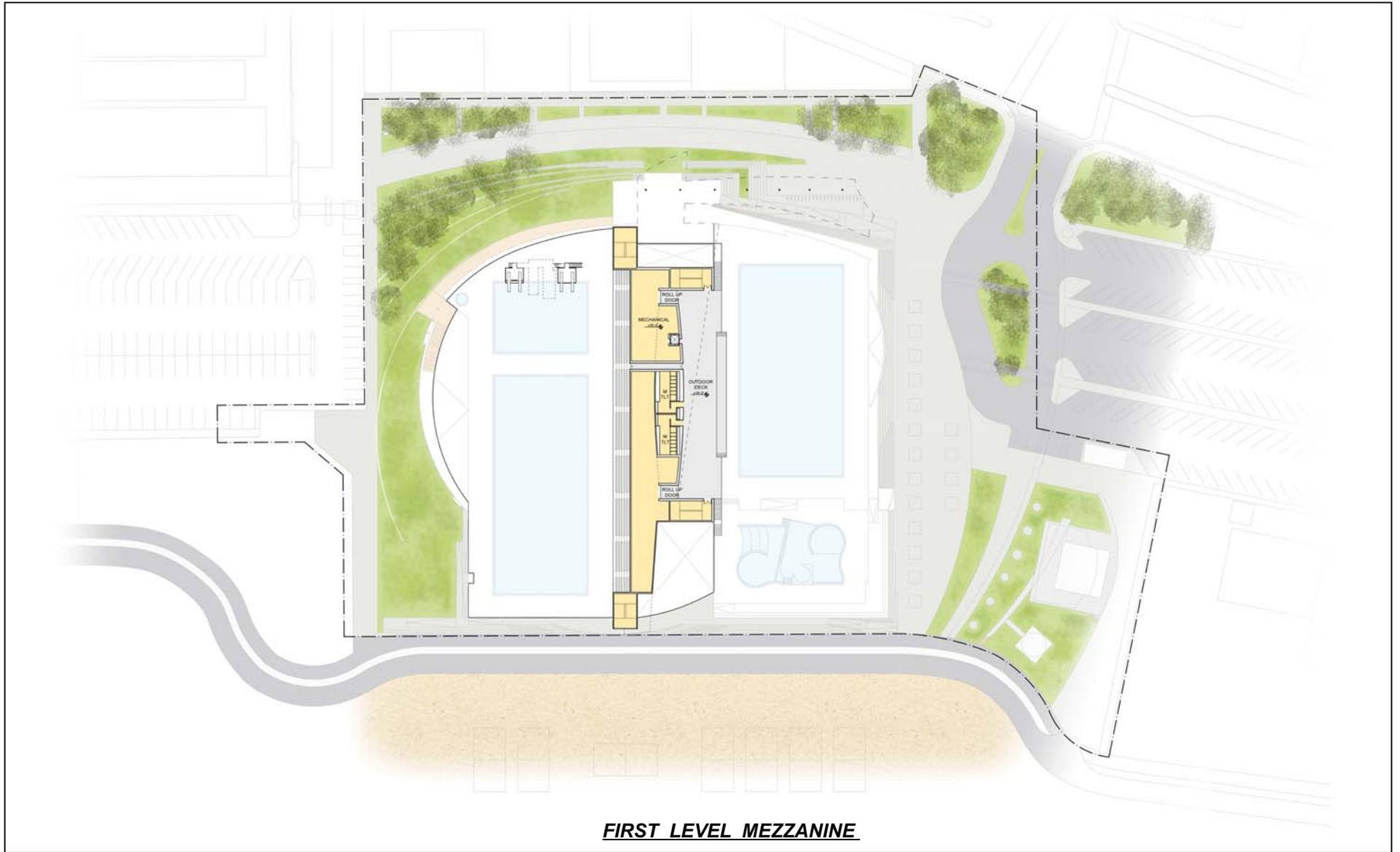


SOURCE: Hastings+Chivetta

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Belmont Pool Revitalization Project
 Conceptual Building Layout Plan

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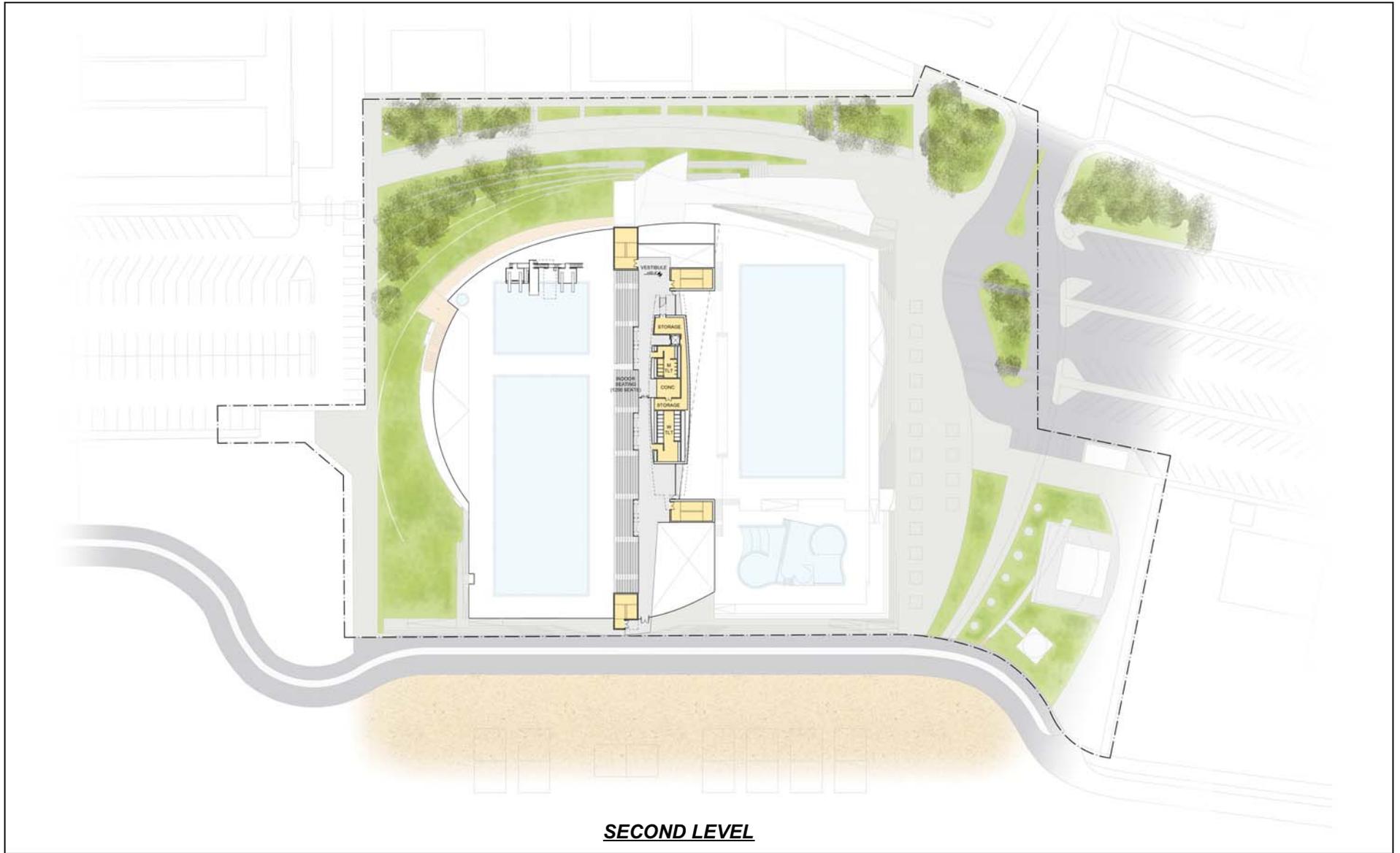


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FIGURE 3.6b



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FIGURE 3.6c



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FIGURE 3.6d



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indoor seating for approximately 1,250 spectators would be provided to view competitive events at the 50-Meter Competition Pool and the Dive Pool. Temporary outdoor seating would be provided for larger events at the Outdoor 50-Meter Competition Pool with a maximum seating capacity of up to 3,000 spectators. The proposed Project does not include any permanent outdoor seating designed for spectator viewing. A comparison of the proposed Project with the former Belmont Pool facility is presented in Table 3.A.

Table 3.A: Project Component Comparison Table

Project Component	Former Pool Facility	Proposed Project	Change
Lot Size	5.8 acres	5.8 acres	0 acre
Building Size	45,595 sf	125,500 sf	+79,905 sf
Maximum Building Height	60 ft	71 ft	+11 ft
Indoor Pool Surface Area	14,010 sf	18,610 sf	+4,600 sf
Outdoor Pool Surface Area	4,400 sf	17,840 sf	+13,440 sf
Open Space Area	118,790 sf	127,085 sf	+8,295
Passive Park/Landscaped Area	45,160 sf	55,745	+10,585 sf
Seating	2,500	4,250*	+1,750 ¹
Outdoor Cafe	5,665 sf	1,500 sf	-4,165 sf
Public Restrooms	0 sf	600 sf	+600 sf

Source: City of Long Beach (2016).

* Permanent indoor seating = 1,250. Temporary outdoor seating = 3,000.

ft = foot/feet

sf = square feet

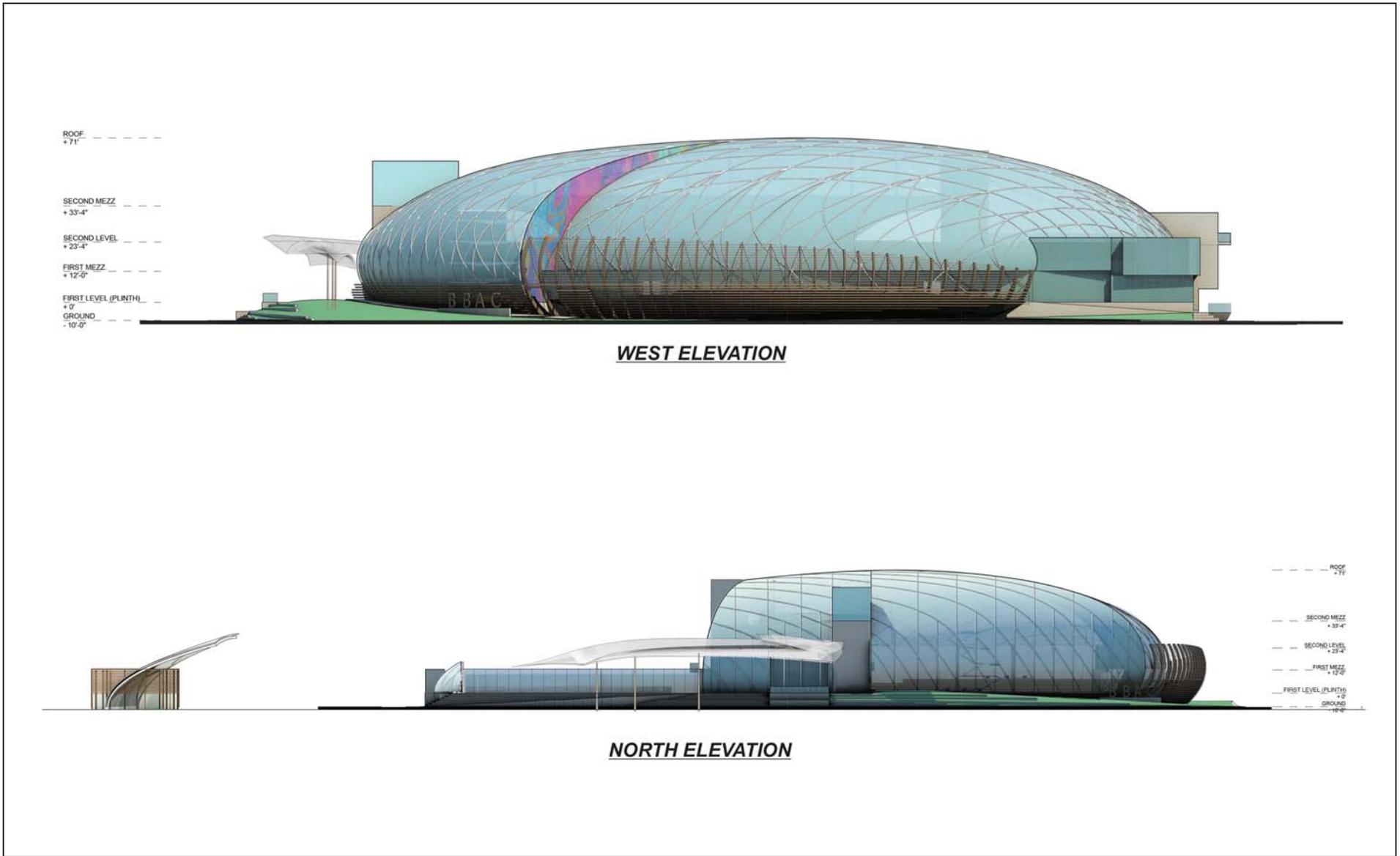
3.4.1 Site Design/Layout

The proposed Project would include clearing and grading of the majority of the site, including the removal of the two existing outdoor pools during the construction phase. However, the removal of the outdoor pools and temporary pool would be phased so that there is continual access to pools for swim programming until the new facility is constructed and operational. As shown in Figure 3.5, the proposed Project would consist of three main areas: the pool facility; the open space/park area; and the outdoor café area, including a public restroom facility. The pool facility consists of the recreational and competitive aquatic components described in Section 3.4.3 and 3.4.4 below and would be the central focus of the Project site. The passive park area would be situated along the western and northern portions of the Project site, and near the outdoor café on the east side, and would be intended for general park uses, similar to the uses at the existing passive park. A pick-up and drop-off area would be located along the eastern boundary and would be adjacent to the outdoor restaurant/café and restroom area at the southeastern corner of the Project site. East Olympic Plaza would be closed to vehicular traffic.

3.4.2 Structural Components

The proposed Belmont Pool facility would be designed to be a landmark structure that would showcase a state-of-the-art facility intended to reflect the community's commitment to recreational and competitive aquatics. Conceptual elevations for the proposed structure are presented in Figures 3.7a and 3.7b. Conceptual interior cross-sections are presented in Figures 3.7c and 3.7d.

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WEST ELEVATION

NORTH ELEVATION

LSA FIGURE 3.7a

Belmont Pool Revitalization Project
Pool Structure Elevations

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ROOF
+ 71'

SECOND MEZZ
+ 33'-4"

SECOND LEVEL
+ 23'-4"

FIRST MEZZ
+ 12'-0"

FIRST LEVEL (PLINTH)
+ 0'

GROUND
- 10'-0"



EAST ELEVATION

ROOF
+ 71'

SECOND MEZZ
+ 33'-4"

SECOND LEVEL
+ 23'-4"

FIRST MEZZ
+ 12'-0"

FIRST LEVEL (PLINTH)
+ 0'

GROUND
- 10'-0"

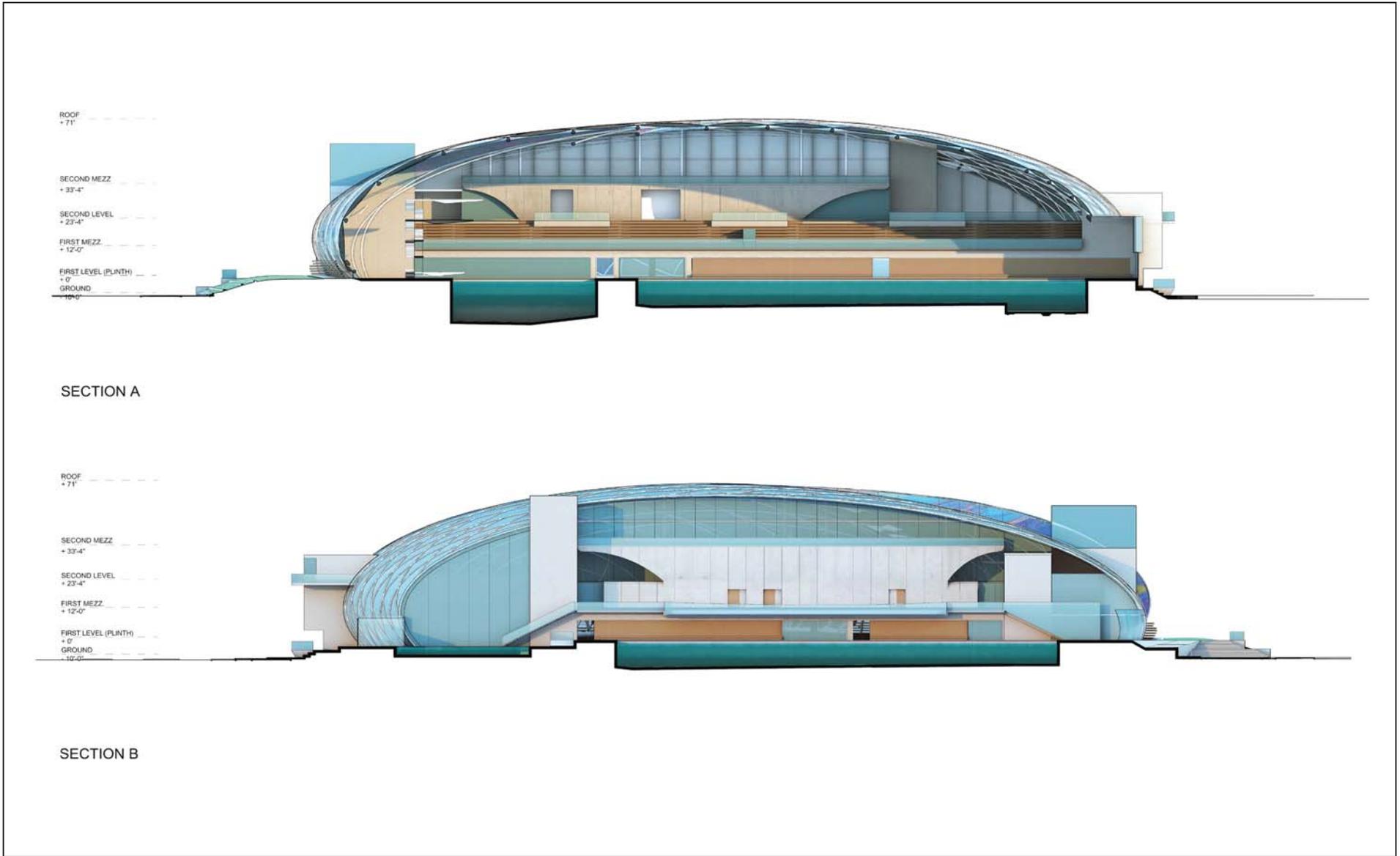


SOUTH ELEVATION

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FIGURE 3.7b

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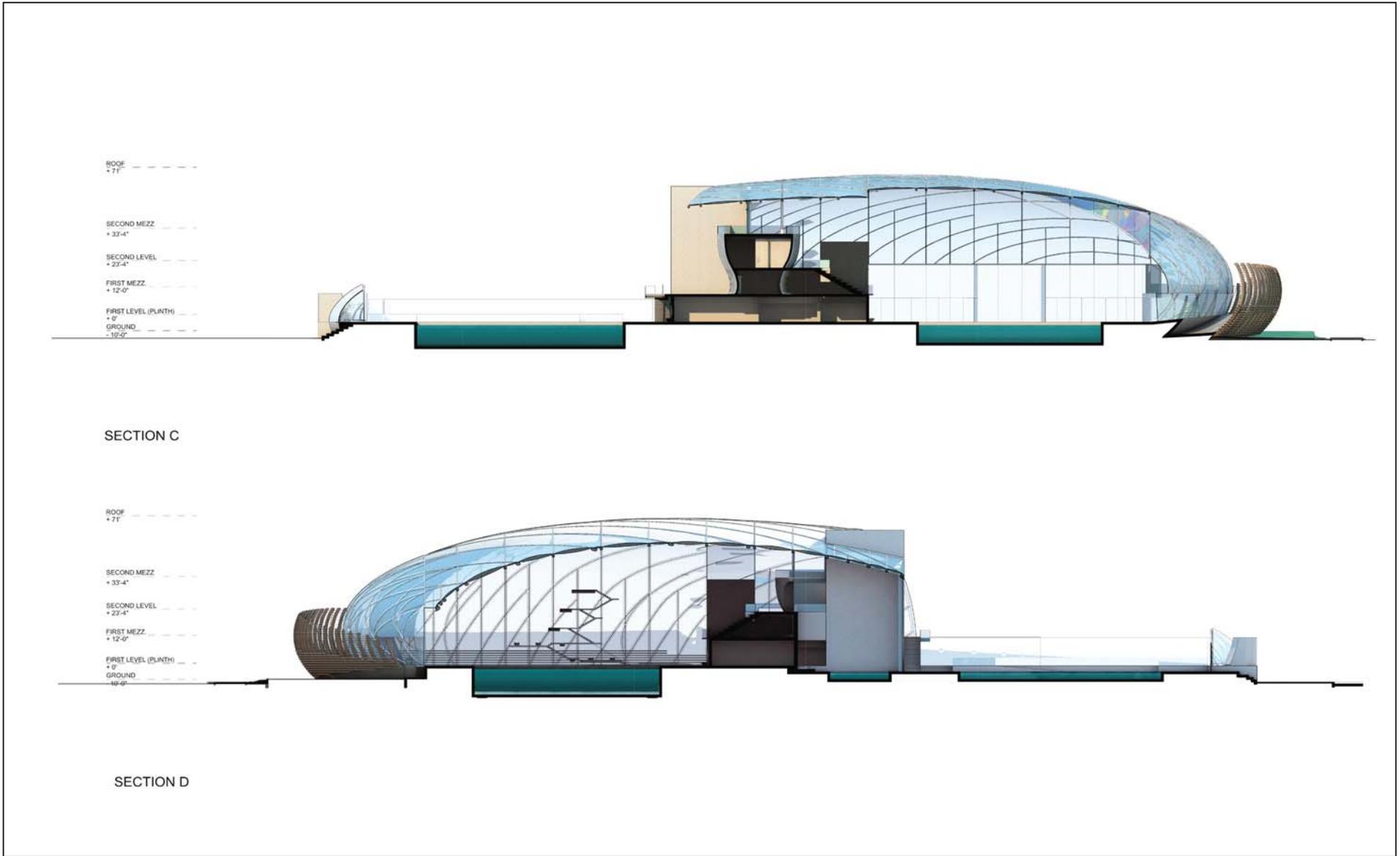


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FIGURE 3.7c

Belmont Pool Revitalization Project
Interior Cross-Sections

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FIGURE 3.7d

Belmont Pool Revitalization Project
Interior Cross-Sections

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Structural components include the following:

1. **The Bubble:** The Bubble would be a translucent cover to serve as the main arena and would house the indoor pools and permanent indoor bleachers. The structure would be an elliptical shaped dome, comprised of a web of structural steel, infilled with ethylene tetrafluoroethylene (ETFE) plastic, creating a continuous shell over the competition pool. Although the ETFE material is essentially self-cleaning, the City will engage the manufacturer to perform periodic inspections and cleaning through an extended warranty and maintenance program. The proposed Bubble structure would have a maximum height of 71 ft above the adjacent grade. A height variance would be required because the building would be located in the portion of the Project site zoned as "Park," which has a height limitation of 30 ft. The former Belmont Pool building was approximately 60 ft above the adjacent grade on the same location.
2. **Level 1: The Plinth:** The Plinth would be the foundation of the entire structure, consisting of a concrete platform at the pool decks and support functions for the indoor and outdoor pools, including lockers, offices, supply rooms, storage, stairs, and elevators. This level is raised approximately 7 ft above the surrounding beach and existing site based on the anticipated maximum ocean high-water mark to protect the pools, buildings, and structures from a high-water event. Below the pool deck level, utility spaces would house the pool equipment, water chambers, chemical storage, and other utilities required to operate the aquatic components.
3. **Level 1 Mezzanine:** The Level 1 Mezzanine would be located adjacent to the outdoor pool deck and would allow for additional outdoor patio space separate from the Plinth level. The Level 1 Mezzanine can be used by visitors and summer swim programs and includes public toilet facilities and mechanical rooms. The exterior patio space would be 6,000 sf.
4. **Level 2:** This level is primarily for visitor spectating and includes access to the indoor bleacher seating, concession area, and toilet facilities. This level would be 14,300 sf, which includes the bleacher seating.
5. **Level 2 Mezzanine:** Located at the highest publicly accessible level of the facility, the Level 2 Mezzanine includes indoor and outdoor spaces for flexible programming. This level would be 4,850 sf.
6. **Café:** This element would be a 1,500 sf building, located at the southwest corner of the Project site, separate from the other structural components. The outdoor cafe would be occupied by an independent tenant and would serve cafe food and beverages to the visitors of the pool facility, bicyclists, walkers, and beach-goers. A visitor drop-off location in this area would provide a safe and unobtrusive way for both passenger cars and buses to drop off visitors to the pool complex.

A gathering area adjacent to the Café would include bicycle parking and interactive pedestrian features such as sandboxes, outdoor seating, landscaping, and public art opportunities.
7. **Public Restrooms:** A public restroom facility would be provided just east of the Café building and would be approximately 600 sf.

3.4.3 Indoor Aquatic Components

The proposed Bubble structure would house the indoor pool configuration providing approximately 18,610 sf of water surface area for recreational, instructional, and competitive uses. The indoor pools

would comply with the preferred rules standards for all aquatic sports supported by the facility. The pool features within the Bubble would include the following:

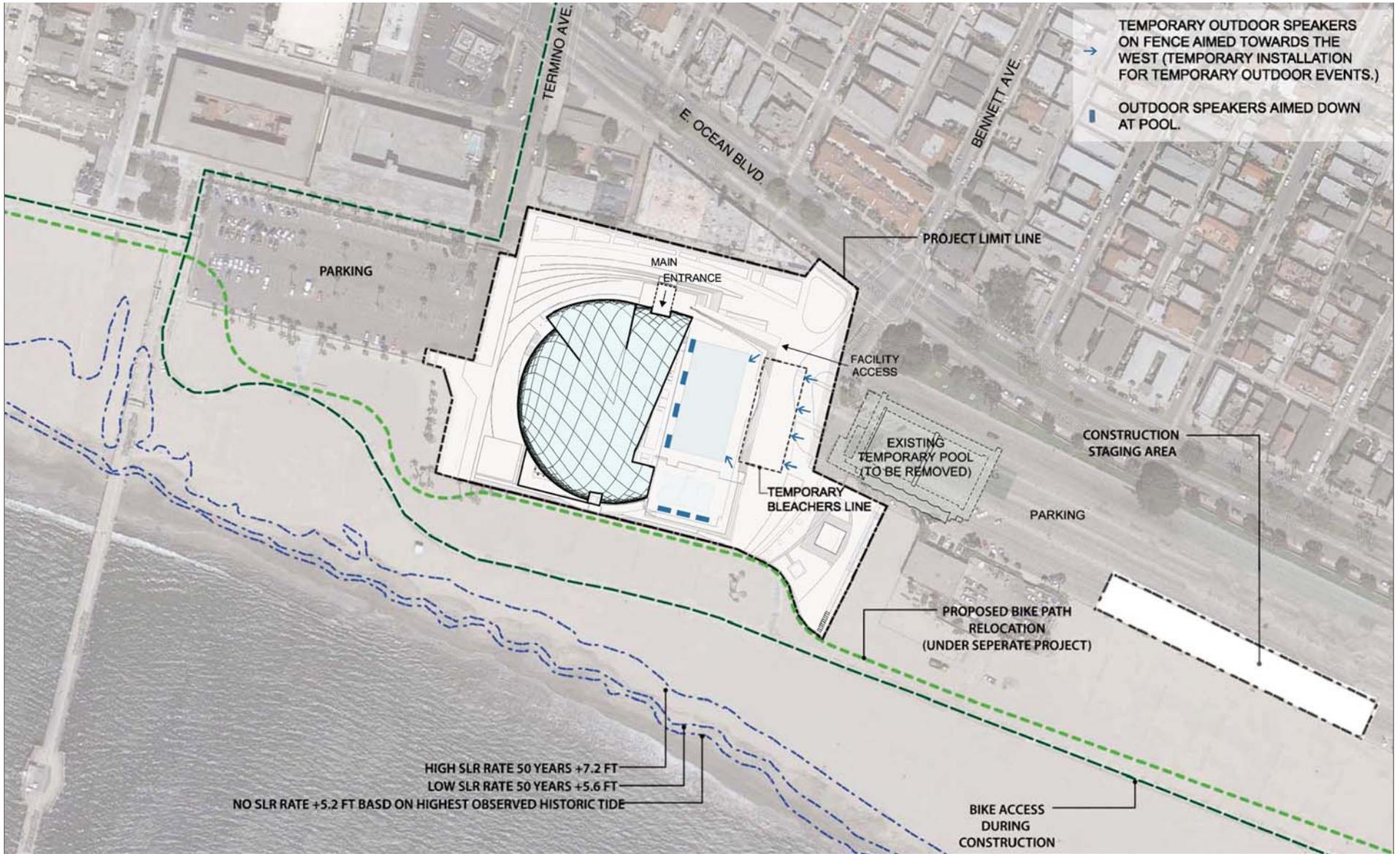
- **Indoor 50-Meter Competition Pool.** A competition-sized pool, with a surface area of approximately 13,220 sf, would be usable year-round. This pool would feature a moveable floor to allow for floor depth adjustments ranging from 0 ft, 0 inches, to 8 ft, 0 inches deep. Eight 9 ft, 0-inch-wide lanes would be identified with solid black floor markers for 50-meter swimming. Twenty-one 7 ft, 6-inch-wide lanes would be provided across the pool. Wall targets and floor markers would be provided per the Federation Internationale de Natation (FINA) regulations. Race courses would contain buffer lanes at the outside of the racing lanes measuring at least 1 ft, 0 inches. Rope anchors would be provided in the pool for floating lane lines. Two 6 ft wide movable bulkheads would also be provided to divide the pool.
- **Indoor Teaching Pool.** The indoor teaching pool would be approximately 820 sf and vary from a minimum depth of 3–6 ft to a maximum depth of 5 ft. The pool would include a large stairway into the water for ease of access.
- **Indoor Spa Pool.** The indoor spa pool would be approximately 250 sf and 3 ft deep. The spa would be made of concrete, feature a ceramic tile interior, and contain hydrotherapy jets.
- **Dive Pool.** The indoor dive pool would be approximately 4,205 sf and would range from 16 to 17 ft deep. This pool would feature a dive tower with platforms at 1, 3, 5, 7.5, and 10 meters. Additionally, two 3-meter springboards and two 1-meter springboards would be provided on the platform side of the pool.
- **Dive Spa Pool.** The indoor dive spa pool would be located adjacent to the Dive Pool and would be approximately 115 sf and 3 ft deep. This spa would be made of concrete, feature a ceramic tile interior, and contain hydrotherapy jets.

3.4.4 Outdoor Aquatic Components

The proposed outdoor pool component would include two separate pools with an approximate total of 17,840 sf of water surface. The outdoor pools are proposed to be located directly adjacent to the indoor pools for utilization of the common support facilities. Viewing of the outdoor competition pool would take place from Level 1 of the Mezzanine or from the pool deck along the western side of the pool where temporary seating could be located for special events. The outdoor pool area does not have permanent spectator seating but has the potential to provide a maximum temporary seating capacity for 3,000 spectators. The amount of seating provided would depend on the type of special event to occur, and the temporary seating would be delivered to the site by the event organizers and removed at the conclusion of the event. A Public Address system would be used during special events. As illustrated by Figure 3.8, Conceptual Speaker Configuration Design, this system would include seven outdoor speakers aimed down at the pool and six temporary speakers that could be installed for special events. The north end of the outdoor pool facilities would be enclosed by a 12 ft high perimeter wall.

The outdoor pool features would include the following:

- **Outdoor 50-Meter Competition Pool.** The outdoor competition pool would have a surface area of approximately 14,120 sf, with a minimum depth of 8 ft, 6 inches, and a maximum depth of 10 ft. The Outdoor Competition Pool would have ten 8 ft, 0-inch-wide lanes marked with solid



LSA

FIGURE 3.8



Belmont Pool Revitalization Project
 Conceptual Speaker Configuration Design

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black floor markers for 50-meter swimming. Twenty-one 7 ft, 6-inch-wide lanes would be provided across the pool. Wall targets and floor markers would be provided per FINA regulations. Race courses would contain buffer lanes at the outside of the racing lane measuring at least 1 ft, 0 inches. The outdoor competition pool would comply with the preferred rules standards for swimming, water polo, and synchronized swimming. One 6 ft wide movable bulkhead would be provided to divide the pool.

- **Outdoor Recreation Pool.** The outdoor recreation pool would be approximately 3,720 sf with a maximum depth of 4 ft. This pool would be used for numerous recreational activities and would include movable lifeguard stands, a handicap lift, and required safety equipment.

3.4.6 Operational Characteristics

The proposed Project addressed in this Draft EIR is the replacement of the former Belmont Pool facility with a larger and more modern pool complex. The proposed pool facility would provide opportunities for public swimming, as well as a venue for swimming, diving and aquatic sports training, and competitive events. These activities are very similar to the activities that have occurred during the past 45 years in the former pool facility, and meet the spirit and intent of the public purpose of the site's original acquisition and development.

The proposed Project includes approximately 36,450 sf of pool surface area, thereby increasing the surface water area of the 18,410 sf former Belmont Pool by 18,040 sf, which would allow for recreational and competitive activities to occur simultaneously, if necessary. Increased programmable water space would minimize the potential for scheduling conflicts that occurred at the former Belmont Pool facility. For example, the hours for public recreational swimming varied by season, but typically occurred in separate time blocks in the early morning, midday, and late afternoon or evening, and were required to be scheduled around the training schedule of competitive aquatic groups.

With the proposed facility, training could occur concurrently with public swim, allowing for increased public access and more club and team practice/training sessions. The former Belmont Pool facility had to be closed to the public during competitive swim meets. As a result of the improved facilities, the proposed Project would allow for simultaneous pool usage at previously conflicted times of day.

Competitive events occurred at both the indoor and outdoor pools of the former Belmont facility and would continue to do so under the proposed operations; however, the proposed Project is expected to attract a higher frequency of competitive uses. For example, a diving meet that typically occurs only once per year may increase its schedule to two or three times per year with the new facility, due to its increased functionality and attractiveness to aquatic teams and clubs. The intensity of each individual event would not change, but additional teams would have the capacity to compete more often. With the proposed Project, there is the capability for concurrent competitive events in the indoor component and the outdoor component at the same time, as well as the ability to continue recreational opportunities during competitive events, something the City has not had in the past.

3.4.7 Passive Park/Landscaping

The proposed open passive park area would be situated along the western and northern portions of the Project site and would be intended for general park uses, similar to the uses at the existing passive park. The existing open space and landscaped areas total approximately 118,790 sf and 45,160 sf, respectively. The proposed Project would include approximately 127,085 sf of open space and 55,745 sf of landscaped areas, thereby increasing open space and landscaped areas by 8,295 sf and 10,585 sf, respectively, when compared to the existing site.

Mature ornamental trees are currently located in the passive park and landscaped areas on the Project site. Ornamental tree species that are currently found in the Project study area include eucalyptus, ficus, oak, ornamental, and paperbark. Some of the existing trees on site may be relocated, depending on their condition and the potential to survive relocation. The City's current tree ordinance is found in Section 14.28 of the Long Beach Municipal Code and requires that a permit be obtained from the Director of Public Works for any trimming, planting, or removal of any tree planted along City streets or on other City property. The City also has a Tree Maintenance Policy to provide guidelines to administer its tree ordinance, which requires a 1:1 replacement ratio and payment of a fee that is equivalent to a City-approved 15-gallon tree. The proposed Project would comply with these requirements and would install a full landscape palette of trees, shrubs, and ground cover plants. The Project's landscape design includes non-invasive and climate-adapted plants that meet the City's landscape requirements. A conceptual Landscape Plan is provided as Figure 3.9.

As a result of California's drought conditions, the State Water Board adopted an extended and revised emergency regulation on February 2, 2016 to ensure that urban water conservation continues in 2016. To conserve water, the proposed Project would install a new low-flow irrigation system with CalSense automatic controllers that would be approved by the City's Parks, Recreation, and Marine Department. The new irrigation system for shrub areas would consist of a drip irrigation system that would provide 90 percent efficiency. Additional water conservation measures include rain sensors, in conjunction with the automatic irrigation system, the installation of mulch and/or soil amendments to help retain moisture, and low water efficient plants.

3.4.8 Proposed Pedestrian Access and Parking

Belmont Plaza is located near the intersection of Ocean Boulevard and Livingston Drive. Access to parking for the Project site is provided from Ocean Boulevard via Termino Avenue and Bennett Avenue. Public transportation in the vicinity of the Project site is provided by Long Beach Transit. Long Beach Transit Route 121 stops near the intersection of Termino Avenue/Ocean Boulevard. The Shoreline Beach Bike Path provides a Class I off-street bike path from the Los Angeles River to 54th Place and provides access to the Project site for bicycles. As a part of the proposed Project, the use of motorized vehicles would be prohibited on East Olympic Plaza to create a unique public space and to allow for increased pedestrian safety. Visitors may park in either of two pay lots, the Belmont Pier Parking Lot northwest of the Project site, or the Beach Parking Lot to the southeast. Together, these two lots contain an approximate total of 1,050 public parking spaces. After the temporary outdoor pool is removed, the Beach Parking Lot would be resurfaced and restriped as a part of a separate project.



LSA

FIGURE 3.9



Belmont Pool Revitalization Project
Conceptual Landscape Plan

SOURCE: Hastings+Chivetta

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3.4.9 Signage

Several categories and sizes of signs would be incorporated into the design of the proposed Project. The monument signs would be used to identify the building and would be located where vehicles approach and enter the site, as well as on the building itself. Monument signs would be located over the main entry on both the north and south sides. Directory signs would include smaller signs located at or near points of entry and pathway intersections, and would direct visitors to the various functional areas of the Project site. Room and place signs would be fixed on the building to identify specific facility functions and direct visitors to their intended destination. A variety of informational and educational signs would also be located throughout the Project site and would provide historical and/or geographical context regarding the pool site.

Outdoor Lighting. Existing lighting on the Project site includes two street lights along East Olympic Plaza and 18 lamppost lights dispersed throughout the site to illuminate walkways. Additionally, light poles illuminate the outdoor pools. Seven lamppost lights adjacent to the former Belmont Pool facility were removed as a part of the emergency demolition of that structure. All of the existing lighting sources within the Project site would be removed and replaced with LED lights, as described below.

Outdoor lighting for the proposed Project would include bollards for directional and safety lighting, as well as pole mounted fixtures for general ambient light. In addition, outdoor illumination would include focused lighting (for stairs, entries, and ramps), accent lighting (for key landscape features), and signage lighting (for direction and building identity). Lighting for outdoor aquatic activities would be provided in compliance with building and competitive swimming standards. The locations of the proposed exterior lights would comply with the City's safety standards and would be shielded, recessed, or directed downward to taper off toward the property lines and prevent glare, spillover onto adjacent properties, and lighting of the night sky.

3.4.10 Utilities and Public Services

All facility and systems performance criteria for utilities will be addressed through the schematic, design development, and construction documents phases of design.

Water Service. The Long Beach Water Department provides water service to the entire City, including the Project site, through a system of underground pipelines. Water service to the proposed Project site would include connecting a 6-inch line to the existing water main under East Olympic Plaza. No new off-site water mains would be required to serve the proposed Project.

Sewer Service. The Los Angeles County Sanitation District serves the Project site's needs for wastewater disposal. The Project site currently connects with an 8-inch sewer main located under East Olympic Plaza. The proposed Project would utilize the existing connections to the sewer main, and would upgrade or relocate existing lines as required.

Electrical, Natural Gas, and Telephone Service. Gas, and telephone services are provided by the Long Beach Gas and Oil Department, and AT&T, respectively. Connections for these utilities would be located along East Olympic Plaza. No new off-site main lines would be required to serve the proposed Project.

Electricity service is provided by Southern California Edison (SCE). The electrical connection for the facility is served from an underground transmission line along East Olympic Plaza. New service conduits, transformer, and appurtenances will be connected to the transmission main along the west side of the facility and at the southeast corner of the Belmont Pier parking lot. No new off-site main lines or substations would be required to serve the proposed Project.

Solid Waste/Recycling. Within Long Beach and at the Project site, solid waste collection services are provided by the City's Environmental Services Bureau.

Drainage. The existing storm drain system consists of an 18-inch reinforced concrete pipe (RCP) in Olympic Plaza Drive that transitions to a 24-inch RCP in Bennett Drive flowing northeast. The majority of the Project site sheet flows into Olympic Plaza Drive or one of the adjacent parking lots to the west or east. The proposed Project would remove the existing on-site drainage network, redesign the drainage layout and replace necessary lines and connections to meet current National Pollution Discharge Elimination Systems (NPDES) and the City's Municipal Separate Storm Sewer Systems (MS4) requirements. As discussed in Hydrology and Water Quality, Section 4.8, the proposed Project would incorporate several Low Impact Development (LID) Best Management Practices (BMPs) in accordance with the City's *LID/BMP Design Manual*. The goal of using Site LID/BMP features is to calculate the necessary number of features to reduce or eliminate storm water pollution due to post-construction site activities. The proposed treatment BMPs are anticipated to include biofiltration swales (bioswales), filtration strip, an underground detention basin, and a drywell. Bioswales are vegetated channels that convey storm water and remove pollutants by filtration through the grass, sedimentation, adsorption to soil particles, and infiltration through the soil. Filtration strips are channels that convey storm water and remove pollutants by sedimentation and adsorption to soil particles, and infiltration through the soil. Detention basins are designed to reduce sediment and particulate loading in storm water runoff. Water is temporarily detained in the basin to allow sediment and particulates to settle out before the runoff is discharged to receiving waters. A drywell is an underground structure designed specifically for infiltration of stormwater.

3.4.11 Conservation and Sustainability Features

The proposed Project intends to be built to meet Leadership in Energy and Environmental Design (LEED) Gold certification standards. Several proposed design features would be implemented to assist in reaching the LEED certification through reducing water and energy consumption. Examples of some of the proposed aquatic conservation features include the following:

- **Aquatic Specific Variable Frequency Drives on Pumps.** The aquatic specific pumps would be in constant communication with the filtration system and chemical controller to provide the optimum electrical frequency to the pump, constantly maintaining the pump at its premium efficiency and reducing energy consumption by as much as 30 percent.

- **Filtration.** A single tank utilizing a Regenerative Media Filter System (RMF) would accommodate the same filter area as five or six traditional high-rate sand filters, creating a significant reduction in required mechanical room space. A typical RMF system may reduce a pool's water consumption by up to 97 percent.
- **High Efficiency Direct Fire Heating.** Improvements in burner design for the integrated heat exchanger have produced results that achieve 95 to 97 percent heater efficiency over conventional burner designs.
- **Underwater Pool Lights.** Utilizing light-emitting diode pool lighting would save energy costs and extend the life of a light bulb by up to 10 times.
- **Water Conservation Measures:** Examples of water conservation measures include the installation of efficient plumbing fixtures and irrigation methods combined with drought-tolerant landscaping that would reduce the water usage compared to traditional equipment and techniques.
- **Pool Blankets.** Using pool blankets reduces water evaporation, chemical use, and energy use. Pool blankets may reduce operating costs from water, heat, and chemical losses by as much as 50 percent and may result in an annual water savings of up to 809,000 gallons.

3.5 CONSTRUCTION ACTIVITIES

Construction activities of the proposed Project would include the grading and excavation of the site; removal of the existing two outdoor pools; potential groundwater dewatering; delivery of materials and personnel; construction of the building area; and installation of landscaping on the Project site. Construction of the proposed Project is anticipated to commence at the earliest in 2017 and be completed within approximately 18 months. The actual start date for construction is dependent on the identification of Tidelands funding, which is dependent on the price of oil, or other sources of yet to be identified funding.

Construction of the proposed Project would require a net export of approximately 1,500 cubic yards (cy) of material. Grading and building activities would involve the use of standard earthmoving equipment such as loaders, bulldozers, cranes, and other related equipment. All heavy-duty equipment and other construction equipment would be staged to the east of the Project site in the Beach Parking Lot, as shown in Figure 3.5, for the duration of the construction activities to prevent disruption to the surrounding land uses.

3.6 PROJECT GOALS AND OBJECTIVES

The primary goal of the proposed Project is to replace the former Belmont Pool facility with a state-of-the-art aquatic facility to continue to serve as a recreational and competitive venue for the community, City, region, and State. In addition, the design scope requires that facility be designed to LEED Gold equivalent. The specific objectives of the Project are to:

- Redevelop the City-owned site of the former Belmont Pool with similar aquatic recreational purposes, consistent with the original ballot measure;
- Replace the former Belmont Pool with a more modern facility that better meets the needs of the local community, region, and State's recreational and competitive swimmers, divers, aquatic

sports participants, and additional pool users due to the tremendous demand for these services in the local community, region, and State;

- Minimize the time period that the community is without a permanent recreation and competitive pool facility;
- Provide a facility that supports recreation, training, and all competitive events for up to 4,250 spectators (1,250 permanent interior seats, up to 3,000 temporary exterior seats);
- Increase programmable water space for recreational swimming to minimize scheduling conflicts with team practices and events;
- Provide a signature design in a new pool complex that is distinctive, yet appropriate for its seaside location;
- Accommodate swimming, diving, and water polo national/international events by reflecting current competitive standards, in accordance with FINA regulations;
- Operate a pool facility that would generate revenue to help offset the ongoing operations and maintenance costs;
- Implement the land use goals of Planned Development PD-2;
- Provide a facility that maximizes sustainability and energy efficiency through the use of selected high performance materials;
- Minimize view disruptions compared to the former Belmont Pool facility;
- Maximize views to the ocean from inside the facility;
- Locate the pool in an area that serves the existing users;
- Design the passive open space with drought tolerant and/or native landscaping and include areas suitable for general community use; and
- Maintain or increase the amount of open space compared to the former Belmont Pool facility.

3.7 DISCRETIONARY PERMITS, APPROVALS, OR ACTIONS REQUIRED

In accordance with Sections 15050 and 15367 of the *State California Environmental Quality Act (CEQA) Guidelines*, the City is the designated Lead Agency for the proposed Project and has principal authority and jurisdiction for CEQA actions. Responsible Agencies are those agencies that have jurisdiction or authority over one or more aspects associated with the development of a proposed project and/or mitigation. Trustee Agencies are State agencies that have jurisdiction by law over natural resources affected by a proposed project.

Project implementation would require Certification of the EIR, a Site Plan Review, a Conditional Use Permit (Food and Beverage Concession), a Standards Variance (Height), and a Coastal Development Permit. See Table 3.B for a list of discretionary and permit approvals required for Project implementation.

Table 3.B: Discretionary Permits and Approvals

Approval	Approval Body/Agency
Certification of the Environmental Impact Report (EIR)	City of Long Beach Planning Commission
Site Plan Review Approval	City of Long Beach Planning Commission
Conditional Use Permit (Food and Beverage Concession) Approval	City of Long Beach Planning Commission
Standards Variance (Height) Approval	City of Long Beach Planning Commission
Issue Coastal Development Permit (CDP)	City of Long Beach Planning Commission and California Coastal Commission
401 Permit – Water Quality Certification National Pollutant Discharge Elimination System (NPDES) Permit	Regional Water Quality Control Board

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4.0 EXISTING ENVIRONMENTAL SETTING, ENVIRONMENTAL ANALYSIS, IMPACTS, AND MITIGATION MEASURES

The following chapter contains 13 sections; each section addresses one environmental topic outlined in Appendix G of the Guidelines for the California Environmental Quality Act (*State CEQA Guidelines*) (California Code of Regulations [CCR] Title 14, Chapter 3, Sections 1500–15397).

For each environmental impact issue analyzed, the Environmental Impact Report (EIR) includes a detailed explanation of the existing conditions, impact significance criteria that will be applied to determine whether the proposed Project’s impacts are significant or less than significant, analysis of the environmental impacts, and a determination of whether the proposed Project would have a significant impact if implemented. A “significant impact” or “significant effect” means “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project” (14 CCR 15382). Each environmental topic section in Chapter 4.0 also includes a discussion of the cumulative effects of the project when considered in combination with other projects, causing related impacts, as required by Section 15130 of the *State CEQA Guidelines*.

Each of the 13 sections is organized into nine subsections, as follows:

- **Methodology** describes the approach and methods employed to complete the environmental analysis for the issue under investigation.
- **Existing Environmental Setting** describes the physical conditions that exist at the present time that may influence or affect the issue under investigation. This section focuses on physical site characteristics that are relevant to the environmental topic being analyzed.
- **Regulatory Setting** lists and discusses the laws, ordinances, regulations, and policies that relate to the specific environmental topic and how they apply to the proposed Project.
- **Impact Significance Criteria** provides the criteria that are the basis of conclusions of significance, which are primarily the criteria in Appendix G of the *State CEQA Guidelines* and the City of Long Beach’s (City) Initial Study and Initial Study Checklist forms. This section also includes a discussion of the CEQA baseline for each environmental topic.
- **Project Impacts** describes the potential environmental changes to the existing physical conditions that may occur if the proposed Project is implemented. Evidence is presented to show the cause and effect relationship between the proposed Project and potential changes in the environment. The exact magnitude, duration, extent, frequency, and range or other parameters of a potential impact are ascertained, to the extent feasible, to determine whether impacts may be significant. In accordance with CEQA, potential Project impacts, if any, are classified in the following way for each of the environmental topics discussed in this EIR.
 - **Potentially Significant Impact.** Potentially significant impacts are those that cannot be fully mitigated or avoided. If the Project is approved, decision-makers are required to adopt a statement of overriding considerations pursuant to *State CEQA Guidelines* Section 15093,

- explaining why the Project benefits outweigh the unavoidable adverse environmental effects caused by these significant environmental impacts.
- **Less than Significant Impact with Mitigation Incorporated.** Significant environmental impacts that can be feasibly mitigated or avoided. If the Project is approved, decision-makers are required to make findings pursuant to *State CEQA Guidelines* Section 15091 that adverse significant impacts have been mitigated to the maximum extent feasible by implementation of mitigation measures.
 - **Less than Significant Impact.** Environmental impacts that are adverse but not significant. No mitigation is required for less than significant impacts.
 - **Cumulative Impacts** describes potential environmental changes to the existing physical conditions that may occur as a result of Project implementation together with all other reasonably foreseeable, planned, and approved future projects producing related impacts. The *State CEQA Guidelines* (Section 15355) defines cumulative impacts as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” Cumulative impacts may result from individually minor but collectively significant projects taking place over a period of time. Projects that have progressed to the state that CEQA review has been initiated are treated as foreseeable probable future projects. For each of the environmental topics considered in this Draft EIR, the geographic scope of the cumulative analysis is defined. For example, the geographic scope of the cumulative analysis for potential cumulative Biological Resources is the immediate Project site and the Greater Belmont Shores area, while the geographic scope of potential cumulative Water Quality and Hydrology impacts includes all projected development in the San Gabriel River Watershed.
 - **Level of Significance Prior to Mitigation** summarizes the potentially significant impacts of the Project, if any, prior to mitigation.
 - **Mitigation Measures** are project-specific measures that would be required of the Project to avoid, minimize, rectify, reduce, eliminate, or compensate for a potentially significant adverse impact.
 - **Level of Significance after Mitigation** describes the significance of potential impacts after implementation of mitigation measures. Potential significant unavoidable impacts are clearly stated in this section.

Table 4.A: Cumulative Project List

Name	Description	Location
Headlands Leeway Sailing Center Pier Replacement	The City proposes to demolish and rebuild the existing Leeway Sailing Pier, Dock, and Gondola Shed Structure in its general same location and footprint. The proposed rebuild is required to replace deteriorated infrastructure. The existing gondola shed structure will be replaced in its general same location on the pier and will provide the same uses. A new 80 ft accessible gangway will connect the pier to a new 2,094 sf timber floating dock to improve American with Disabilities Act access.	Leeway Sailing Center 5437 E Ocean Blvd Long Beach, CA 90803

4.1 AESTHETICS

This section provides a discussion of the existing visual and aesthetic resources on the Project site and in the surrounding area, as well as an analysis of potential impacts from implementation of the Belmont Pool Revitalization Project (proposed Project). The term “Project area” is used to refer to the Project site (including construction staging areas) and the immediately adjacent land uses. In February 2015, the former Belmont Pool was demolished due to substandard seismic and structural conditions deemed to be an imminent threat to public safety. In accordance with the California Environmental Quality Act (CEQA) Section 15125(a), the physical environmental conditions in the vicinity of the project, as it exists at the time the Notice of Preparation (NOP) was published, will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. Because the NOP for the proposed Project was issued on April 9, 2014, before the demolition of the Belmont Pool structure, the analysis of potential aesthetics impacts includes the former Belmont Pool as a part of the baseline aesthetic condition.

Scoping Process

The City of Long Beach (City) distributed the first NOP for this Draft Environmental Impact Report (EIR) from April 18 to May 17, 2013. The City received three comment letters in response to the original NOP. No comment letter associated with Aesthetics was received in response to the original NOP circulated for the proposed Project. Due to revisions in the Project Description, the City re-issued and circulated the NOP for the Draft EIR between April 9, 2014, and May 8, 2014. The City received five comment letters in response to the re-issued NOP during the public review period. No Aesthetics-related issues were raised in those comment letters.

4.1.1 Methodology

The concepts and terminology that are used in this analysis are described below.

- **Aesthetic Resource:** An aesthetic resource is any element, or group of elements, that embodies a sense of beauty. A city's aesthetic resources include its natural setting, the architectural quality of its buildings, the vitality of its landscaping, the spatial relationships they create, and the views afforded by each. The degree to which these resources are present in a community is clearly subject to personal and cultural interpretation. However, it is possible to qualify certain resources as having aesthetic characteristics and establish general guidelines for assessing the aesthetic impacts of new development.
- **Glare:** A continuous or periodic intense light that may cause eye discomfort or be blinding to humans.
- **Light Source:** A device that produces illumination, including incandescent bulbs, fluorescent and neon tubes, halogen and other vapor lamps, and reflecting surfaces or refractors incorporated into a lighting fixture. Any translucent enclosure of a light source is considered to be part of the light source.
- **Scenic Resource:** An element that contributes to the area's scenic value and includes landform, vegetation, water, or adjacent scenery and may include a cultural modification to the natural environment.

- **Scenic Vista:** A scenic vista is the view of an area that is visually or aesthetically pleasing from a certain vantage point. It is usually viewed from some distance away. Aesthetic components of a scenic vista include (1) scenic quality, (2) sensitivity level, and (3) view access. A scenic vista can be impacted in two ways. A development project can have visual impacts by either directly diminishing the scenic quality of the vista or by blocking the view corridors or “vista” of the scenic resource. Important factors in determining whether a proposed project will block views include its height, mass, and location relative to surrounding land uses and travel corridors.
- **Vantage Point:** A particular point of observation.
- **Viewer Sensitivity:** Viewer sensitivity is defined by visibility of resources in the landscape; proximity of viewers to the visual resources; elevation of viewers relative to the visual resource; frequency and duration of views; number of views; and types and expectations of individuals and viewer groups.
- **Viewshed:** The surface area that is visible from a given vantage point or series of vantage points. It is also the area from which that vantage point or series of vantage points may be seen. The viewshed aids in identifying the views that could be affected by the proposed action.
- **Visual Character and Quality:** The visual aesthetic character or quality of a streetscape, building, group of buildings, or other human-made or natural feature that create an overall impression of an area within an urban context. As examples, a scenic vista along the boundary of a community, a pleasing streetscape with trees, and well-kept residences and yards are scenic resources that create a pleasing impression of an area. In general, concepts of visual character and quality can be organized around four basic elements: (1) site utilization, (2) buildings and structures, (3) landscaping, and (4) signage.

This section assesses the aesthetic compatibility of the proposed Project with the surrounding area and potential impacts to any public views that may exist in the Project vicinity. The assessment of aesthetic impacts is subjective by nature. This analysis attempts to identify and objectively examine factors that contribute to the perception of aesthetic impacts. Potential aesthetic impacts of the proposed Project can be evaluated by considering such factors as the scale, mass, proportion, orientation, landscaping, setbacks, and construction materials associated with the design of the proposed Project. The City has not adopted defined standards or methodologies for the assessment of aesthetic impacts. Edge conditions and viewshed alterations are considered in the context of these factors to the extent such information is known. The aesthetic compatibility of the proposed Project with the surrounding area and potential impacts to sensitive viewers are examined.

Sensitive viewers are generally those associated with designated vantage points and public recreational uses. Views evaluated from private property are not considered to be protected views under the General Plan polices or Zoning Ordinance. Neither State nor local law protects private views from private lands and the rights of one landowner cannot prevail over the rights of another landowner, except in accordance with uniformly applied standards and policies as expressed in the City's General Plan and Zoning Ordinance.

Potential impacts of the proposed Project on area viewsheds are analyzed by judging Project impacts to three viewing distance zones, as explained below.

- **Foreground Views.** These views include elements that are seen at a close distance and that dominate the entire view. These vantage points are generally 500 ft or less from the Project site, depending on the scale of the Project, surrounding topography, and other prominent physical features in the Project vicinity.
- **Middleground Views.** These views include elements that are seen at a moderate distance and that partially dominate the view. These vantage points are generally located between 500 ft and 1 mile from the Project site.
- **Background Views.** These views include elements that are seen at a long distance and typically comprise horizon-line views that are part of the overall visual composition of the area. These vantage points are generally farther than 1 mile from the Project site.

Light and Glare. The analysis of light and glare identifies the location of light-sensitive land uses and describes the existing ambient conditions on the Project site and in the Project site vicinity. The analysis describes the proposed Project's light and glare sources and the extent to which Project lighting, including any potential illuminated signage, would spill off the Project site onto adjacent light-sensitive areas. The analysis also describes the affected street frontages, the direction in which the light would be focused, and the extent to which the proposed Project would illuminate sensitive land uses. The analysis also considers the potential for sunlight to reflect off of building surfaces (glare) and the extent to which such glare would interfere with the operation of motor vehicles, aviation, or other activities. Glare can also be produced during evening and night-time hours by artificial light sources, such as illuminated signage and vehicle headlights. Glare-sensitive uses generally include residences and transportation corridors (i.e., roadways).

4.1.2 Existing Environmental Setting

Regional Visual Character. The proposed Project site is located in the City of Long Beach, between the Los Angeles River and the San Gabriel River. The site lies within the southwestern area of the Los Angeles Basin, which consists of a low alluvial floodplain. The floodplain is punctuated by a line of elongated low hills, folds, and faults that delineate the northwest-trending Newport-Inglewood Structural Zone. Floodplain deposits from the Los Angeles River and the San Gabriel River have contributed to the formation of the coastal plain on which the site is located.

Existing Visual Character of Surrounding Areas. The areas surrounding the Project site are developed urban areas including residential, commercial, and recreational land uses. Distinct visual components in the surrounding areas are discussed below.

Beach. The City beach borders the southern edge of the Project site. The beach spans the area between the edge of the former Belmont Pool site to the edge of the high tide line (approximately 100 yards). It should be noted that a temporary, shallow backfilled sand area ("sand blanket") was placed where the previous building was located, at the request of the California Coastal Commission. This backfilled sand area is temporary and is the location where the proposed Belmont Pool facility will be constructed. No vegetation exists on the beach with the exception of a several palm trees. A multimodal pedestrian and bike trail traverses the beach generally east-

west and can be accessed from both the west and east parking lots. Beach volleyball courts are available for recreational users. A dog-accessible beach (Rosie's Dog Beach) is located southeast of the Project area. The visual character of the beach is dominated by expansive views of the ocean to the south that stretch from the foreground to the horizon, the meandering multimodal beach path, lifeguard towers regularly interspersed along the beach to the east and west, views of the Belmont Veteran's Memorial Pier to the west, surface parking and the Belmont pool complex to the north, and a City maintenance yard to the east. Distant views from the beach include the waters of the Pacific Ocean, manmade islands approximately 0.75 to 1.25 miles from the shoreline, the marine-related commercial development of the Port of Long Beach, and other general urban development to the northeast and northwest. General urban development directly to the north of the beach (at Belmont Plaza) was obscured by the former Belmont Pool.

Belmont Veteran's Memorial Pier. The Pier is located west of the Project site. The pier is a public City resource for recreational visitors. Dominant uses include fishing and sightseeing. The visual character of the Pier is dominated by expansive views of the ocean. Distant views from the pier include the Project site, beach areas, the City maintenance yard, parking lots, marine-related commercial development associated with the far distant Port of Long Beach, and residential and commercial urban development.

Residential and Commercial. Residential uses are located to the north and northeast of the Project site across Ocean Boulevard and consist of mostly two and three story medium density multi-family structures that vary in architectural styles and colors. Views from this residential portion of this neighborhood consist mostly of the street scene along Ocean Boulevard which includes mature landscaping such as palm and canopy trees, street light poles, and overhead utilities. An approximately six ft concrete wall lines the western side of Ocean Boulevard, impairing much of the public view of the Pacific Ocean from this area.

Immediately west of the Project site are the Surf Terrace Apartments and the Belmont Shore Condominiums which are 3- and 4-story medium-density residential buildings. These structures are solid buildings that do not contain much architectural variability that allow for views of the shoreline or Ocean from the surrounding area. The size and mass of these residential buildings make them one of the most dominant visual features of the urban setting of the Project area.

Commercial uses are located immediately north and northwest of the Project site across Termino Avenue and Ocean Boulevard. They consist of mostly one-story structures that are unique and eclectic in architectural styles with a variety of facade shapes, building colors, and signage. Views from the commercial uses are limited to the street scene of Ocean Boulevard and the accompanying landscaping and infrastructure.

Outdoor Temporary Pool. In order to provide aquatic services during the closure of the former Belmont pool, the City installed a temporary pool east of the Project site in the western portion of the Beach Parking Lot (refer to Figure 3.2, in Chapter 3.0, Project Description). The temporary pool opened on December 19, 2013, and is expected to remain open until the proposed Project begins operations. An 8 ft tall perimeter fence containing a photographic mural depicting people

swimming surrounds the temporary pool. Behind the fence, the pool is raised approximately 4 ft above ground, making the lifeguard towers, sun shades, and visitors walking on the pool deck visible from outside the pool. Four 10 ft light poles are located at the corners of the temporary pool to allow nighttime aquatic activities. Views from the temporary pool include the surrounding parking lot, the Project site residential and commercial uses, as well as the beach and Pacific Ocean.

Light and Glare. Existing nighttime lighting conditions vary substantially throughout the City of Long Beach. Nighttime lighting varies from moderately high levels in areas of commercial development to areas of low level or a complete absence of night lighting. The difference observed result from both variation in levels of development and the light dampening effects of topographical changes in terrain. The majority of light and glare near the Project site comes from illuminated outdoor commercial signage, residential lighting, traffic signals, passing vehicles and streetlights in the immediate area.

Existing Visual Character of the Project Site. The former Belmont Pool was existing at the time the NOP was published and, therefore, is included as a part of the baseline existing conditions. The Project site is relatively flat with existing grades ranging from 0.5 to 4.0 ft above mean sea level (amsl). The site is fully developed and includes a passive park on the northern half and the (former) Belmont Pool on the southern portion.

Pool Complex. The Belmont Pool consisted of an Olympic-size indoor pool, a community/private event building, springboard and platform diving well, weight room, and men's and women's locker rooms/restroom facilities; La Palapa restaurant located in the same building as the existing pool; and an adjacent outdoor swimming pool separated from the larger indoor facility by a multimodal beach path (boardwalk).

The indoor Belmont Pool building measured 224 by 148 ft and was constructed in 1967 in a distinctive architectural style with a shear-wall frame, cast in place reinforced concrete columns, and prestressed concrete girders. It had a 23 ft high glass curtain wall below a 25 ft high precast concrete shear-wall. The two-story pool was flanked by a one-story locker room on the east and a two-story community building that was rented for private events (such as weddings and conferences) on the west side. The facades of the complex were built with a series of vertical concrete piers that support flat roofs with projecting eaves and pebble aggregate panels in between them. The effect was a contrasting smooth and rough texture that suggested classical arches below the roof line. In 1969, the building won an award from the Portland Cement Association for its versatile use of concrete in "structural, architectural, and economic solutions" (Long Beach Heritage 2013).

The existing outdoor pools are currently open to the public and are situated on the east side of the pool complex. The Outdoor Lap Pool is a 6-lane, 25-yard heated pool with a water temperature of 80 degrees. The pool is 3.5 ft deep throughout. There is also a wading pool for toddlers and young children. Plexiglas walls are constructed around three sides of the facility with views of the ocean to the south.

Existing lighting on the Project site includes two street lights along East Olympic Plaza and 18 lamppost lights dispersed throughout the site to illuminate walkways. Additionally, light poles illuminate the outdoor pools. Seven lamppost lights adjacent to the former Belmont Pool building were removed as a part of the emergency demolition of that structure.

The visual character of the Project site is dominated by views of the beach and Pacific Ocean, surface parking, a City maintenance yard, and businesses. The Belmont Veteran's Memorial Pier is visible to the west of the pool complex, as well as distant views of the Port of Long Beach and manmade islands several hundred yards from the shoreline. Views of residential and other general urban development to the north are also visible from the Project site.

Passive Park. The passive park is a recreational area located on the northern side of the Project site and consists of grassy lawns, mature ornamental trees, a multi-modal pedestrian and bicycle trail, street lamps, and bicycle racks. The visual character of the park was dominated by views of the former Belmont Pool, parking lots (Beach Parking Lot and Pier Parking Lot), East Olympic Plaza and street parking, and adjacent commercial establishments. Distant views from the park include limited views of the Pacific Ocean to the west, and general urban development to the northeast and northwest.

Vantage Point Descriptions. The following discussion describes several key views of the Project site from adjacent public roads and sidewalks. Photographs were taken to analyze the various views that existed during the baseline setting and that would potentially be affected by the proposed Project. A photograph location key map (see Figure 4.1.1, Key View Locations Map) indicates the vantage point from which each key view photograph was taken and the representative view from that location.

Figures 4.1.2 and 4.1.3, Key Views 1 and 2, and Key Views 3 and 4, respectively, contain four key view photographs, as referenced in the following discussion, and are provided following the description of each vantage point.

- **Key View 1: View from Southbound Termino Ave (Figure 4.1.2):** Key View 1 shows a view of the proposed Project site looking south at the intersection of Termino Avenue and Midway Street at the corner of the Jack in the Box parking lot. This vantage point was selected because it represents the view of the Project site for both vehicular and pedestrian visitors to the Pier and beach. This vantage point was also selected because it is the secondary access point to the proposed Project site.

As shown, the foreground consists of mature landscaping and the Belmont Shore Children's Center. The middleground contains the former Belmont Pool located on the Project site as well as the entrance to the Pier Parking lot with associated landscaping. The background is a small and mostly unnoticeable portion of this view but contains the Pacific Ocean and horizon in the distant background.

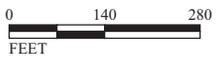


FIGURE 4.1.1

LSA

LEGEND

-  - Project Site
-  - Key View Location



SOURCE: Google Earth

I:\CLB1302\G\2016\Key View Map.cdr (32/16)

Belmont Pool Revitalization Project
Key View Locations Map

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Key View 1: View of the Project site facing south at the intersection of Termino Avenue and Midway Street.



Key View 2: View of the Project site facing southwest from the intersection of Ocean Boulevard and Bennett Avenue.

LSA

FIGURE 4.1.2

Belmont Pool Revitalization Project

Key Views 1 & 2

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Key View 3: View of the Project site traveling west on Ocean Boulevard at the intersection with Prospect Avenue.



Key View 4: View of the Project site from the midway point on the Pier facing northeast.

LSA

FIGURE 4.1.3

Belmont Pool Revitalization Project
Key Views 3 & 4

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- **Key View 2: View from Westbound Ocean Boulevard at Bennett Avenue (Figure 4.1.2):** Key View 2 shows a view of the Project site facing southwest from the intersection of Ocean Boulevard and Bennett Avenue. This vantage point was selected because it depicts the most direct and accessible view of the Project site from the surrounding area. Additionally, it depicts the point along Ocean Boulevard where there a break in the concrete wall and mature landscaping occurs, allowing westbound vehicular travelers a clear view of the Project site. This vantage point was also selected because it is the primary access point to the Project site.

The foreground views are of the intersection and associated street lights of Ocean Boulevard and Bennett Avenue. The middleground, and most prominent feature of this view, is of the passive park landscaping and eastern part of the former Belmont Pool building. The background is mostly blocked by the onsite structures and landscaping with the exception of a small portion of the sky visible to the left of the Belmont Pool complex.

- **Key View 3: View from Westbound Ocean Boulevard at Prospect Avenue (Figure 4.1.3):** Key View 3 shows a view of the Project site traveling west on Ocean Boulevard at the intersection with Prospect Avenue, approximately 450 ft from the eastern boundary of the Project site. This vantage point was selected because it represents the most typical view of the Project site for drivers traveling west along Ocean Boulevard and includes the mature landscaping and concrete wall located adjacent to Ocean Boulevard.

Directly in front of this view are Ocean Boulevard, the median landscaping and associated lights and signage. The middleground includes the concrete wall and mature landscaping adjacent to Ocean Boulevard only portions of the temporary pool and Belmont Pool in the background view are visible since they are mostly blocked by the concrete wall and street landscaping.

- **Key View 4: View from Belmont Memorial Veteran's Pier (Figure 4.1.3):** Key View 4 shows a view of the Project site facing northeast from the midway point on the Pier. This vantage point was selected because it represents the view of the Project site for visitors of the Pier and best depicts the coastline side of the Project site. The Belmont Pool structure is the most visible from this area as there are very few trees or other landscaping to block views of from the complex. This vantage point was also selected because it represents the viewpoint of ocean-related visitors to the area as well as any boating viewers.

The foreground view includes the Pacific Ocean with middleground views consisting of the beach and southerly side of the former Belmont Pool structure. Other structures in the middleground include the Surf Terrace Apartments to the left and temporary pool to the right of the Belmont Pool. Background views include the skyline of the inland topography of Long Beach.

4.1.3 Regulatory Setting

Federal Policies and Regulations. No federal policies or regulations pertaining to aesthetics are applicable to the proposed Project.

State Policies and Regulations.

California Scenic Highways Program. California's Scenic Highway Program was designed to preserve and protect scenic highway corridors. Jurisdictions nominating a scenic highway for

official designation have in place or adopt ordinances to preserve the scenic quality of the corridor, including policies to preserve scenic resources through land use regulations, site planning, control of outdoor advertising, grading, and measures to direct structural design and appearance (California Streets and Highways Code 260 et seq.). There are no Officially Designated or Eligible State Scenic Highways as designated by the California Department of Transportation (Caltrans),¹ in the vicinity of the proposed Project.

California Coastal Act. The policies included in the California Coastal Act ([Coastal Act] Sections 30200 et al.), Article 3, are intended to protect certain water-oriented activities, recreational boating uses, marine-related recreational facilities, and development of the ocean front land. The activities covered in Article 3 also include dredging and movement of sediments and nutrients from the ocean floor. An applicable Coastal Act visual/aesthetic policy is listed below.

Section 30251:

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coast areas, to minimize the alteration of natural landforms, to be visually compatible with the character of surrounding areas, and where feasible, to restore and enhance visual quality in visually degraded areas.

Section 30253:

New development shall: “(e) Where appropriate, protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.” The California Coastal Commission has defined special communities as “areas that add to the visual attractiveness of the coast.”

Local Regulations and Policies

City of Long Beach General Plan. The City of Long Beach General Plan includes a total of 11 elements, including Open Space, Housing, Air Quality, Transportation, Land Use, Seismic Safety, Local Coastal Program, Noise, Public Safety, Scenic Routes, and Conservation. The Long Beach General Plan includes the Land Use Element that addresses issues related to urban design and the overall aesthetic quality of the City. Specifically, the Land Use Element includes an Urban Design Analysis that outlines several features and policy directions for the urban character of the City, including the importance of building heights and masses, and also emphasizes visual compatibility, good design, and landscaping. The Land Use Element focuses on preservation of

¹ California Department of Transportation (Caltrans). California Department of Transportation, California Scenic Highway Mapping System. Website: http://www.dot.ca.gov/hq/LandArch/scenic_highways/ (accessed March 9, 2015).

certain features such as the sandy beach frontages and bluffs and also includes provisions for “positive design steps” to improve appearances along many of the streets in Long Beach.

Scenic Highway Element. The Scenic Routes Element was adopted in 1975 in order to protect the valuable viewsheds throughout the City. The Scenic Routes Element identifies the portion of Ocean Boulevard that is adjacent to the Project site as being included in the “Recreational Scenic Route.” This route was created to “interconnect a kaleidoscope of recreational activities that are of the local and regional significance and portray an image of the City that is most desirable.” According to the Scenic Routes Element the Project site is adjacent to the “Shoreline” segment of the route, which offers some of the region’s best beaches. However, the route has not been officially designated as a State Scenic Route or Scenic Highway.

No goals or policies were established specifically for the Recreational Scenic Route. However, listed below are a list of goals and policies from the Scenic Routes Element that are generally related to the proposed Project:

- **GOAL:** Preserve and enhance natural and man-made aesthetic resources within and visible from scenic corridors.
 - **Policy 1:** Develop land use regulations and apply standards to control and enhance the quality of new and existing development within the scenic corridors of designated routes.
 - **Policy 2:** Remove or screen visual pollution from designated scenic route corridors.
 - **Policy 3:** Require the development and use of aesthetic design considerations in any necessary modification of roadways and appurtenances for the enhancement of all designated scenic routes.
- **GOAL:** Strengthen the City’s image, and thereby, the well-being of its citizens.
 - **Policy 1:** Increase the visibility of aesthetic features, natural and man-made, to develop a better awareness of the observer’s location within the City and a better understanding of the City’s function and meaning.
 - **Policy 2:** Develop standards of design articulation and continuity in sequential form and graphic representation that will unify and define the scenic route system.
 - **Policy 3:** Promote the awareness and use of the amenities of scenic routes for all segments of the population.
- **GOAL:** Link and enhance recreational, cultural, and educational opportunities through a network of scenic corridors.
 - **Policy 1:** Establish and maintain urban scenic routes to provide access to interesting and aesthetic natural and man-made features, historical and cultural sites, industrial and educational sites, and urban open space areas.
 - **Policy 2:** Cooperate in the establishment of an inter-urban, inter-county scenic route system.

- **Policy 3:** Maximize within the scenic corridors the compatible multi-purpose objectives of open space planning, such as recreation, conservation, public health and safety, and preservation of scenic-aesthetic amenity.

City of Long Beach Planning Documents. The City's Open Space and Recreation Element of the General Plan and the Long Beach Department of Parks, Recreation, and Marine Strategic Plan contain objectives and policies related to aesthetics and visual character. The applicable objectives and policies are listed below.

Open Space and Recreation Element–Policy 1.2: Protect and improve the community's natural resources, amenities, and scenic values, including nature centers, beaches, bluffs, wetlands, and water bodies.

Open Space and Recreation Element–Policy 4.1: Create additional recreation open space and pursue all appropriate available funding to enhance recreation opportunities.

Marine Strategic Plan–Goal 4: Ensure beaches, waterways, and marine amenities are accessible and provide a positive experience and image.

Long Beach Municipal Code. Title 21, Zoning, of the Long Beach Municipal Code (LBMC) includes property development standards, as well as design guidelines, for development projects within the City. Additionally, design guidelines and policies from the Belmont Pier Planned Development District (PD-2) and Municipal Code Chapter 21.35 – Park (P) Districts would be applicable to the Project site. Among the aspects of development regulated by the LBMC are types of allowable land uses, setback and height requirements, landscaping, walls, fencing, signage, access, parking requirements, storage areas, and trash enclosures. The LBMC also provides performance standards for various land use types to measure development projects' consistency with such regulations.

Belmont Pier Planned Development District (PD-2). The intent of this Planned Development is to encourage a joint public and private effort to revitalize the underutilized area containing the significant public resources of the Belmont Pier and the Olympic Plaza Pool. The Planned Development District has been utilized in this effort because of its ability to combine flexibility of regulation while specifying detailed development requirements within a framework of maximum public review and involvement.

Chapter 21.35 – Park (P) Districts. The P District is established to set aside and preserve publicly owned natural and open areas for active and passive public use for recreational, cultural, and community service activities. Parks are established to promote the mental and physical health of the community and provide physical and psychological relief from the

intense urban development of the City. Such areas are characterized by landscaped open space, beaches, or inland bodies of water.

4.1.4 Thresholds of Significance

According to Appendix G of the *State of California Environmental Quality Act (CEQA) Guidelines*, the proposed Project may be considered to have a significant effect related to aesthetics if the Project would:

- Threshold 4.1.1: Have a substantial adverse effect on a scenic vista;**
- Threshold 4.1.2: Cause substantial damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway;**
- Threshold 4.1.3: Substantially degrade the existing visual character or quality of the site and its surroundings; or**
- Threshold 4.1.4: Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.**

All of these thresholds were discussed in the Initial Study prepared for the proposed Project (Appendix A) and were recommended to be evaluated further within this Draft EIR, with the exception of Threshold 4.1.2, which evaluates scenic resources within a State Scenic Highway. There are no State Scenic Highways located within the City of Long Beach. Although Ocean Boulevard is a proposed Local Scenic Route, it has not been officially designated as a Scenic Route or Scenic Highway. Therefore, as determined in the Initial Study, there would be no impact associated with this threshold, and it will not be discussed further in this Draft EIR.

CEQA Baseline. At the time the NOP was published (April 2014), the Project site contained both the Belmont Pool facilities and the outdoor temporary pool (opened in December 2013 to provide swimming facilities while the permanent facility was under construction). Although the site contained the former Belmont Pool building at the time of the NOP, the facility was subsequently demolished in February 2015 to alleviate an imminent public safety threat due to the seismically unsafe condition of the building.

The inclusion of the former building in the assessment of aesthetic impacts is appropriate because the site has been dedicated as the Belmont Pool Plaza since 1962 when the use of Tideland funds for the construction of the “Belmont Plaza Beach Center” (now Belmont Plaza) project was approved by the voters after the Long Beach City Council placed the item in the municipal election. Furthermore, the former pool was in use for approximately 45 years and has long been a part of the visual character of the Project area as a recognizable local and regional aquatic facility. Substantial evidence supports the determination that the former Belmont Pool building as the baseline for aesthetics impacts is appropriate because it is based on recent historical use and its presence on the project site.

4.1.5 Project Impacts

Threshold 4.1.1: Would the project have a substantial adverse effect on a scenic vista?

Less than Significant Impact. This subsection addresses public views of scenic vistas within or near the Project site and how they would be affected by the proposed Project. There are no locally designated scenic vistas on or surrounding the Project site but expansive ocean views from public right of ways can generally be considered to have aesthetic value.

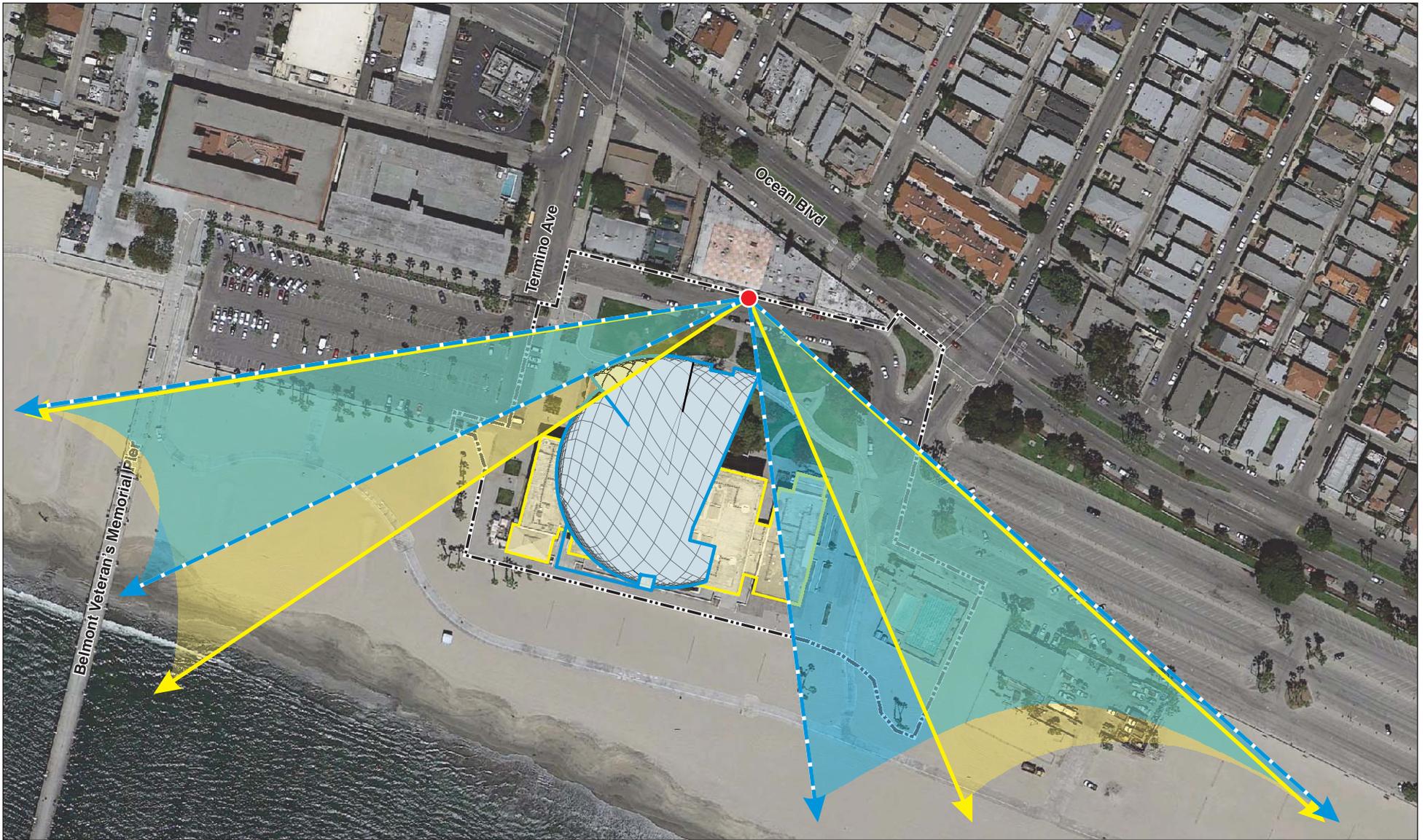
The former Belmont Pool complex was a rectangular building that was aligned lengthwise from east to west along the southern boundary of the Project site, adjacent to the beach. As shown in Figures 4.1.2 and 4.1.3, the design of the 60 ft block building maximized scale and mass and obstructed the majority of the coastal views on and directly surrounding the site.

As shown in Figure 4.1.4, Pre- and Post-Project Building Orientation, the proposed pool complex would be located generally on the building footprint of the former Belmont Pool complex. However, the Bubble component of the proposed development would be the only part of the complex with notable architectural features. The outdoor pool area would be a flat pool deck area surrounded by transparent 8 to 15 ft Plexiglas wall that would not block views. The proposed restaurant would have minor contributions to the overall scale and mass of the proposed Project as it would be located at the southeastern corner of the site and consist of a 1,500-square foot (sf) one story structure with an architectural feature made from the same ETFE material which would arch over the small structure (like an awning) in a sloping manner (see Figures 3.7a and 3.7b in Chapter 3.0, Project Description).

Figure 4.1.4 depicts a viewing area comparison between the former Belmont Pool and the proposed Bubble. The former Belmont pool obstructed views of the coastline from viewers on and surrounding the Project site due to the location and mass of the building on the project site. Buildings associated with the proposed Project – specifically the Bubble structure – would be situated on the western portion of the site and be aligned in a south to north direction. As shown in Figure 4.1.4, the proposed placement and alignment of the Bubble would allow for increased views of the coastline that were previously blocked by the former Belmont pool. Additionally, as shown in the building elevations (Figures 3.7a and 3.7b), the curved elliptical shape of the Bubble reduces the structural scale and mass, when compared to a traditional rectangular building, by eliminating the corners of the building, allowing for an increase in viewable area. Therefore, the change in the building placement on the site, in combination with the reduced structural mass from the Bubble's elliptical design, would not result in a substantial adverse effect on scenic vistas and a less than significant impact would occur. No mitigation is required.

Threshold 4.1.3: Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Less than Significant Impact with Mitigation. This subsection addresses how public views of the Project site and its surroundings would be affected by the proposed Project. Changes in the visual character of the site and the surrounding area would occur with implementation of the proposed Project during both the construction and operational phases.



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LEGEND

-  - Project Site
-  - Viewshed with Existing Structure
-  - Viewshed with Proposed Structure



SOURCE: Google Earth

I:\CLB1302\G\2016\Building Orientations.cdr (3/2/16)

FIGURE 4.1.4

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Construction. Construction of the proposed Project would involve on-site grading and construction activities that would be visible to travelers along Ocean Boulevard and other adjacent roadways. Construction activities for the proposed Project would be short-term and temporary fencing would be placed along the perimeter of the site to screen construction activities from the street level. The construction staging area would be located in the southwest portion of the Beach Parking Lot, where it will not interfere with the operation of the temporary pool, the beach maintenance facility, or vehicle movements through the parking lot. It is recognized that construction fencing could serve as a potential target for graffiti if not appropriately monitored. Mitigation Measure 4.1.1 would require that temporary barriers and walkways are maintained in a visually attractive manner throughout the construction period. Mitigation requiring the maintenance of the Project site fencing would ensure that impacts associated with unwanted debris and graffiti would be less than significant.

Operations. As described above, the visual character immediately surrounding the Project site is representative of a fully built out urban area containing a mix of commercial and residential structures of varying sizes and architectural styles combined with distinct recreational uses such as the Belmont Pool, beach area, volleyball courts, Rosie's Dog Beach, kite surfing, and the Pier.

The passive park and the main pool complex are the two main components that would make up the aesthetic character of the proposed Project. Conceptual elevations of the proposed structure are presented in Figures 3.7a and 3.7b.

Proposed Pool Complex. The proposed Project includes the replacement of the former Belmont Pool complex with a new pool complex at the same location. The structural components of the proposed pool complex would consist of an indoor pool structure (the Bubble), the outdoor pool area, and the restaurant/gathering area. The Bubble structure would be the most prominent structure of the complex with a maximum height of 71 ft above the adjacent grade with a contemporary and unique elliptical design resembling a bubble. The structure would be comprised of a web of structural steel, infilled with ethylene tetrafluoroethylene (ETFE) plastic, creating a continuous compound curved shell over the indoor pools. The ETFE roof system has been designed to allow diffuse sunlight to illuminate a major portion of the building's interior. At night, the structure can be illuminated in any color with interior lights glowing through the air-filled plastic pillows which make up the arched roof. Rather than be completely round, the Bubble is designed to have a facade on the eastern side, separating the indoor pools from the outdoor pool area. The outdoor pool area includes two pools surrounded by a Plexiglas barrier ranging in height from 8 to 15 ft. The transparent barrier would maintain views of the surrounding areas.

The Bubble and outdoor pool areas make up the majority of the structural area and would be situated along the southern boundary of the Project site. The restaurant and gathering area is located at the southeastern corner of the Project site and is made up a large open area adjacent to the beach. This area is where visitors would be dropped off and picked up as they arrive and depart the pool complex. The only structural component of this area is the one-story 1,500-square-foot (sf) outdoor cafe just to the south of the drop-off area. Although separated from the Bubble, the outdoor cafe also contains an architectural feature made from the same ETFE

material which would arch over the small structure (like an awning) in a sloping manner and provide an architectural connection to the other areas of the Project. Therefore, the pool complex would not degrade the visual character of the site or the surrounding area. Potential impacts would be less than significant and no mitigation would be required.

Architecture and Scale. When compared to the former Belmont Pool, the proposed Project would represent a substantial change in the architectural styles of the structures. The former Belmont Pool was built in a traditional style that emphasizes height and scale achieved through towering columns that extended from the ground to the roof. As previously discussed, the placement, alignment, and mass of the proposed Project is substantially different than that of the former Belmont Pool.

As illustrated in Figures 4.1.5 and 4.1.6, Post-Project Key Views, the Bubble structure is visible in all four key views. However, as compared to the former Belmont Pool structure, the curved elliptical shape of the Bubble reduces the structural scale and mass. In addition, the ETFE roof system allows the sunlight to be diffused, illuminating the building's interior. The transparency of the Bubble structure results visually reduces the mass of the building.

Although the styles in architecture are dramatically different, both structures are designed to serve the purpose of being a regional attraction for recreational and competitive aquatics. Both structures are designed to be taller and larger than the buildings surrounding the site in order to accomplish the goal of attracting visitors. Although the proposed Project would result in a change in architectural style compared to the former Belmont pool complex, the large scale nature of the Belmont Pool complex would remain. Also, the proposed Project would replace the former Belmont Pool complex with another pool complex of the same use and would not change the visual character of the Project site as a regional attraction. Therefore, the architecture and scale of the proposed Project would not degrade the visual character of the site and surrounding area and less than significant visual character impacts would result from the implementation of the proposed Project. No mitigation is required.

Building Height. The proposed Project would include the replacement of the Belmont Pool complex with a larger and contemporary pool complex. The former Belmont Pool structure reached a height of 60 ft for the entire length of the 230 ft long building, which was well above the permitted 30 ft limit of the Park District design guidelines. As illustrated in Figure 4.1.7, North Elevation Comparison, the proposed Bubble structure would also be above the 30 ft height limit but reach a maximum of 71 ft above the adjacent grade, requiring the approval of a variance to allow for the increased building height. Although the peak of the Bubble structure would be approximately 11 ft higher than the former Belmont Pool, the proposed structure would be elliptical, not rectangular, and only the peak of the structure would exceed the height of the original structure. From the highest point, the roof would taper downward toward the sides of the Bubble, as shown in the building elevations (Figures 3.7a and 3.7b) and only a small portion of the proposed Project would exceed the height limitation. In comparison, the original rectangular pool complex had an entire roofline of the pool building at 60 ft. Therefore, the visual character of the site and surrounding area would not be degraded and less than significant visual character



Key View 1: View of the Project site facing south at the intersection of Termino Avenue and Midway Street.



Key View 2: View of the Project site facing southwest from the intersection of Ocean Boulevard and Bennett Avenue.

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FIGURE 4.1.5

Belmont Pool Revitalization Project
Post-Project Key Views 1 & 2

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Key View 3: View of the Project site traveling west on Ocean Boulevard at the intersection with Prospect Avenue.



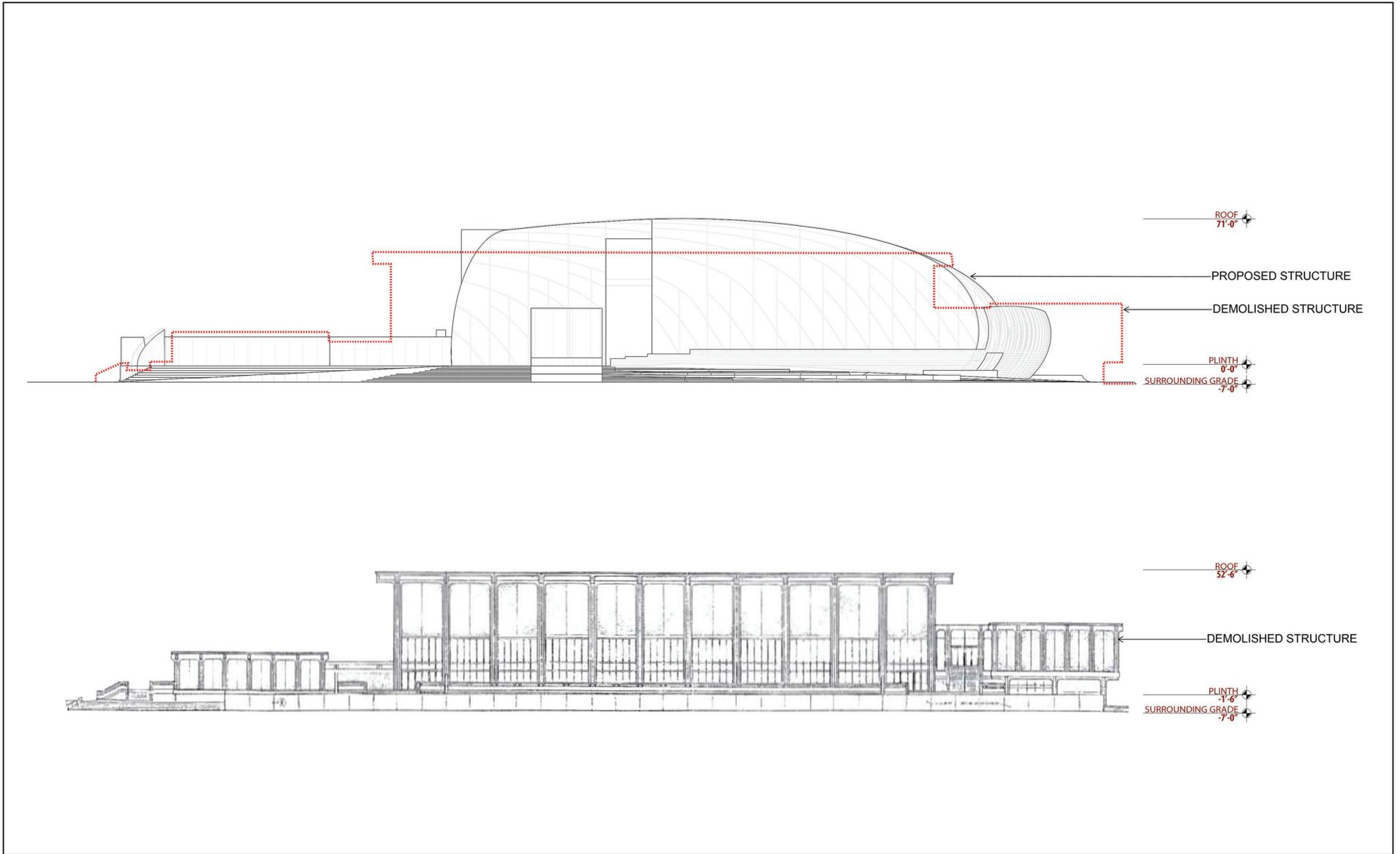
Key View 4: View of the Project site from the midway point on the Pier facing northeast.

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FIGURE 4.1.6

Belmont Pool Revitalization Project
Post-Project Key Views 3 & 4

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FIGURE 4.1.7

Belmont Pool Revitalization Project
 North Elevation Comparison

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impacts would result from the implementation of the proposed Project, and no mitigation is required.

Signage. Several categories and sizes of signs would be incorporated into the design of the proposed Project. The monument signs would be used to identify the building and would be located where vehicles approach and enter the site, as well as on the building itself. Monument signs would be located over the main entry on both the north and south sides. Directory signs would include smaller signs located at or near points of entry and pathway intersections, and would direct visitors to the various functional areas of the Project site. Room and place signs would be fixed on the building to identify specific facility functions and direct visitors to their intended destination. All signs would be designed and installed in compliance with the City's Municipal Code. As such, the proposed Project would not result in a significantly adverse impact related to on-site signage, and no mitigation is required.

Passive Park. As illustrated in Figure 4.1.8, Open Space Comparison, the existing site includes 118,790 sf of open space area and 45,160 sf of green space on the northern half of the Project site. The park contains large lawn areas and mature ornamental trees. Ornamental tree species that are currently found in the Project study area include eucalyptus, ficus, oak, ornamental, and paperbark. As shown in key views presented in Figures 4.1.2 and 4.1.3, much of the existing landscaping obstructs views of the former Belmont pool and coastal views from Ocean Boulevard.

The proposed 127,085 sf of open space and a 55,745 sf passive park would be situated along the western and northern portions of the Project site as depicted in Figure 3.9, Conceptual Landscape Plan (see Chapter 3.0, Project Description). Landscaping would consist of a mixture of native and non-native drought-tolerant species to harmonize with the building design. Although the alignment of the passive park would be modified, the proposed Project would result in an increase of 8,295 sf of open space and 10,585 sf of passive park space, and would be intended for general park uses, similar to the uses at the existing passive park. It should be noted that in consideration of the drought conditions and State mandates, the design team will continue develop the passive park areas in close coordination with the City through the schematic, design development and construction documents design phases. Therefore, aesthetic impacts related to the removal of existing on-site landscaping or the installation of proposed landscaping would be less than significant, and no mitigation is required.

Conclusion. Overall, the visual character of the site would be altered because the design of the proposed structure would be dramatically different than the former Belmont Pool complex. However, the proposed Project design appears to have comparable mass, scale, and height and would also be aligned to provide for increased coastal views. Additionally, the proposed Project would replace one large recreational pool complex with another recreational pool complex and although the design would be different, the visual character of the Project site would not be substantially degraded with the implementation of the proposed Project. Project impacts would be less than significant impacts, and no mitigation is required.

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FIGURE 4.1.8



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City Designated Scenic Route. While Ocean Boulevard adjacent to the Project site is not a designated State Highway, the Scenic Routes Element of the City's General Plan has identified the portion of Ocean Boulevard adjacent to the Project site as a designated scenic route associated with the Recreational Scenic Route.¹ While implementation of the proposed Project would modify the views to and from the Project site by replacing the former Belmont Pool with a new pool complex, the proposed Project would not substantially alter the existing character of the surrounding area. Motorists along Ocean Boulevard would experience increased views of the coastline following implementation of the proposed Project. Therefore, potential impacts of the proposed Project on the Recreational Scenic Route would be less than significant, and no mitigation is required.

Threshold 4.1.4: Would the project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

Less than Significant Impact with Mitigation Incorporated.

Construction. Lighting required during the construction period could generate light spillover in the vicinity of the proposed Project site. However, construction activities would occur only during daylight hours, and any construction-related illumination would be used for safety and security purposes only (in compliance with LBMC light intensity requirements) and would occur only for the duration required for the temporary construction process. With adherence to existing LBMC regulations, light resulting from construction activities would not substantially impact sensitive uses, substantially alter the character of off-site areas surrounding the construction area, or interfere with the performance of an off-site activity. Therefore, construction of the proposed Project would not create a new source of substantial light that would adversely affect day or nighttime views in the area, and light impacts associated with construction would be less than significant.

Operation. Light-sensitive uses surrounding the Project site include the Surf Terrace and Belmont Shore condominiums to the west and the multi-family residences to the north and northeast across Ocean Boulevard.

Nighttime lighting present in the vicinity of the proposed Project site consists of street lights and vehicle headlights on nearby roadways; building facade and interior lighting; lighting for the temporary pool; and pole-mounted lighting in the parking areas adjacent to the Project site. The proposed Project site itself contains 2 streetlights along East Olympic Plaza, 18 pole-mounted lights along the pathways in the passive park, and lighting for the outdoor pool. Previously, the former Belmont Pool building facade contained structural and signage lighting, as well as 7 additional lamppost lights on the west and south that were removed as a part of the emergency demolition of that structure.

The proposed Project would include the installation of new lighting for the pool, which will replace the existing lighting for the outdoor pools, park, and associated street lights. The replacement lighting would be installed to facilitate outdoor competitive aquatic events and

¹ City of Long Beach. Planning Department. Long Beach General Plan Program, Scenic Routes. Prepared May 9, 1975.

recreational swimming that may be held in the evening or at night. Additionally, nighttime lights are necessary for the safety and security of the visitors and employees on site and along the park pathways, but outdoor light fixtures would be shielded so that lighting is focused downward to restrict any light spillover. Therefore, implementation of the proposed Project may introduce new sources of light and glare, such as increased intensity of outdoor pool lighting. However, compliance with the existing City Municipal Code would reduce lighting impacts from the outdoor pool to less than significant by shielding glare and directing lighting on site. No mitigation is required.

The compound curved shell of the Bubble component of the proposed Project would be covered with an ETFE roof system, which has been designed to allow diffuse sunlight to illuminate a major portion of the building's interior. At night, the structure can be illuminated in any color with interior lights glowing through the air-filled plastic pillows that make up the arched roof thereby creating an additional source of light to the area. However, the illumination of the Bubble would be from the interior of the building and would not include direct light shining outward from the Project site. The covering used for the Bubble would be translucent, which will diffuse light emitted from the facility giving the overall appearance of the Bubble at night to be of a glowing half-globe as illustrated by Figure 4.1.9, Nighttime View Simulation, instead of a glaring dome with direct light shining out in all directions. Additionally, the lighting of the Bubble structure would be limited to 10:00 p.m., the operational hours of the facility, and would not be lit throughout the night. Therefore, the increase in ambient lighting would not interfere with activities or nighttime views in the area. No mitigation measures would be required.

Glare.

Construction. Daytime glare can result from natural sunlight reflecting from a shiny surface that would interfere with the performance of an off-site activity, such as the operation of a motor vehicle. Construction activities are not anticipated to result in flat, shiny surfaces that would reflect sunlight or cause other natural glare. Minor glare from sunlight on construction equipment and vehicle windshields is not anticipated to impact visibility in the area because the construction site would be fenced and shielded from pedestrian views and passenger vehicle views. In addition, construction vehicles would not be operating at night and thus would not create nighttime sources of glare. Therefore, impacts due to glare generation and interference with the performance of an off-site activity or adverse effects on views would be less than significant during construction.

Operation. Daytime glare can result from natural sunlight reflecting from a shiny surface that would interfere with the performance of an off-site activity, such as the operation of a motor vehicle. Reflective surfaces can be associated with window glass and polished surfaces. The ETFE used for the Bubble shell is made from a low reflective plastic. Nighttime glare sources from the proposed Project could include lighting from illuminated signage and vehicle headlights.

Vehicles traveling on Ocean would not be in a direct line of sight to receive reflected sunlight due to the presence of the proposed landscaping on the Project site. Reflective sunlight would not reach the commercial uses to the north because of the landscaping along the perimeter of the site



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FIGURE 4.1.9

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as well as the lack of reflective material. While the proposed Project's building accents may include metal or other highly polished surfaces around building entrances, such accents would be small relative to the size of the facade and would be partially blocked by landscaping buffers. Therefore, the reflection toward oncoming motorists from the building materials used in the proposed Project's buildings would be minimal.

The only nighttime glare-sensitive uses would be vehicles traveling on surrounding streets. Nighttime glare-producing components of the proposed Project would include signage, exterior building lighting, parking lot lighting, and lighting from vehicles visiting the Project site. The interior lighting of the Bubble would not be considered a glare producing light as the structure would be illuminated from the inside which would produce a glow and not a direct light.

The Project signage would be illuminated by light-emitting diode lights in conformance with the existing City Municipal Code, and would be required to obtain Site Plan Review and approval. Additionally, similar to daytime glare, nighttime glare would be reduced due to the obstruction from the proposed landscaping in the interior portions of the Project site. The nighttime glare produced by the signage, exterior lighting, and vehicular headlights would be similar to the existing nighttime glare produced by the surrounding residential and commercial uses and would not result in enough glare to be considered substantial or affect nighttime views.

Therefore, impacts due to glare generation and interference with the performance of an off-site activity or adverse effects on views would be less than significant during operation of the proposed Project, and no mitigation is required.

4.1.6 Cumulative Impacts

Cumulative impacts refer to the combined effect of Project impacts with the impacts of other recent and reasonably foreseeable future projects. The cumulative study area for aesthetic impacts is limited to the immediately adjacent area within view of the Project site. As discussed above, the proposed Project is located in an urban area with a number of existing sources of light and glare. Because the proposed Project would replace the former Belmont Pool with a modernized pool complex, light and glare as a result of proposed Project would be consistent with the baseline conditions in the area and would not impact views in the area. The potential aesthetic impacts to scenic vistas, scenic resources, and existing visual character were evaluated and found to be less than significant. Therefore, the contribution of the proposed Project to potential cumulative visual/aesthetic impacts in the study area is considered less than significant.

4.1.7 Level of Significant Prior to Mitigation

Construction of the proposed Project would result in the possibility of unwanted debris and/or graffiti on construction site fencing and temporary pedestrian pathways. Implementation of Mitigation Measure 4.1.1 would be required to maintain the scenic quality of the Project site during project construction. All other potential construction impacts would be less than significant. Operation of the proposed Project would result in less than significant impacts related to aesthetics, light, and glare, and would not contribute to cumulatively significant aesthetic impacts.

4.1.8 Mitigation Measures

The following mitigation measures are proposed to minimize temporary visual impacts due to construction of the proposed Project.

Mitigation Measure 4.1.1: Maintenance of Construction Barriers. Prior to issuance of any construction permits, the City of Long Beach (City) Development Services Director, or designee, shall verify that construction plans include the following note: During construction, the Construction Contractor shall ensure, through appropriate postings and daily visual inspections, that no unauthorized materials are posted on any temporary construction barriers or temporary pedestrian walkways, and that any such temporary barriers and walkways are maintained in a visually attractive manner. In the event that unauthorized materials or markings are discovered on any temporary construction barrier or temporary pedestrian walkway, the Construction Contractor shall remove such items within 48 hours.

4.1.9 Significant Unavoidable Adverse Impacts

As previously stated, potentially significant impacts to the scenic quality of the Project site could occur during Project construction as a result of possible postings and unauthorized materials on the temporary construction barriers and temporary pedestrian walkways. With implementation of Mitigation Measure 4.1.1, all identified potentially significant impacts associated with unauthorized materials or markings on construction fencings and/or walkways would be mitigated to a less than significant level. All other potential impacts related to Aesthetics would be less than significant.

4.2 AIR QUALITY

This section discusses the potential short- and long-term air quality impacts of the Belmont Pool Revitalization Project (proposed Project). Specifically, this section addresses short-term impacts during construction, including fugitive dust and equipment emissions, and long-term emissions associated with vehicular travel and stationary equipment. The analysis presented in this section is based on calculations resulting from air quality modeling performed for the proposed Project. The air quality modeling results are presented in Appendix B.

Scoping Process

The City of Long Beach (City) distributed the first Notice of Preparation (NOP) for the Draft Environmental Impact Report (EIR) from April 18 to May 17, 2013. The City received three comment letters in response to the original NOP. One comment letter addressing Air Quality was received from the South Coast Air Quality Management District (SCAQMD) during the first public review period. Due to revisions in the Project Description, the City re-issued the NOP for the Draft EIR between April 9, 2014, and May 8, 2014. The City received five comment letters in response to the re-issued NOP during the public review period. The SCAQMD commented again during the second public review period with a letter that contained the same topics and comments. Both letters from the SCAQMD recommended that air quality impacts be analyzed using the *California Environmental Quality Act (CEQA) Air Quality Handbook* (April 1993) as guidance for the preparation of the air quality analysis and development of mitigation measures. It also stated that the EIR should analyze air quality impacts associated with all project phases and air pollutant sources, quantify emissions of particulate matter less than 2.5 microns in diameter (PM_{2.5}), calculate localized air quality impacts and compare to the localized significance thresholds (LSTs), and conduct a mobile health risk assessment (HRA).

4.2.1 Methodology

Evaluation of air quality impacts associated with a proposed commercial retail project included the following:

- Determination of the short-term construction air quality impacts
- Determination of the long-term air quality impacts resulting from emissions from vehicular traffic and stationary sources on off-site and on-site air quality-sensitive uses
- Determination of mitigation measures required to reduce short- and long-term air quality impacts from all sources

The SCAQMD's current guidelines, included in its *CEQA Air Quality Handbook* (April 1993), were adhered to in the assessment of potential short- and long-term air quality impacts of the proposed Project. However, the air quality models identified in the *CEQA Air Quality Handbook* are outdated; therefore, the current model, California Emissions Estimator Model (CalEEMod) Version 2013.2.2, was used to quantify the Project-related mobile and stationary source emissions. Intersection vehicle turn volumes were used in the California Department of Transportation (Caltrans) CALINE4 model to evaluate carbon monoxide (CO) impacts.

4.2.2 Existing Environmental Setting

The Project site is located in the City of Long Beach, which is part of the South Coast Air Basin (Basin) and is under the jurisdiction of SCAQMD.

Climate/Meteorology. Air quality in the planning area is affected not only by various emission sources (mobile, industry, etc.) but also by atmospheric conditions such as wind speed, wind direction, temperature, and rainfall, etc. The combination of topography, low mixing height, abundant sunshine, and emissions from the second largest urban area in the United States gives the Basin the worst air pollution problem in the nation.

Climate in the Basin is determined by its terrain and geographical location. The Basin is a coastal plain with connecting broad valleys and low hills. The Pacific Ocean forms the southwestern border, and high mountains surround the rest of the Basin, which lies in the semipermanent high-pressure zone of the eastern Pacific; the resulting climate is mild and tempered by cool ocean breezes. This climatological pattern is rarely interrupted; however, periods of extremely hot weather, winter storms, or Santa Ana wind conditions do occur.

The annual average temperature varies little throughout the Basin, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station closest to the site is the Long Beach Daugherty Field Station. The monthly average maximum temperature recorded at this station from 1949 to January 2015 ranged from 67.0°F in December to 83.9°F in August, with an annual average maximum of 74.2°F. The monthly average minimum temperature recorded at this station ranged from 45.3°F in December to 64.9°F in August, with an annual average minimum of 54.8°F. January is typically the coldest month, and August is typically the warmest month in this area of the Basin.

Most rainfall in the Basin occurs between November and April. Summer rainfall is minimal and is generally limited to scattered thundershowers in coastal regions and slightly heavier showers in the eastern portion of the Basin and along the coastal side of the mountains. The Long Beach Daugherty Field Station monitored precipitation from 1949 to January 2015, during which average monthly rainfall varied from 2.90 inches in February to 0.42 inch or less between May and October, with an annual total of 12.01 inches. Patterns in monthly and yearly rainfall totals are unpredictable due to fluctuations in the weather.

Although the Basin has a semiarid climate, air near the surface is generally moist because of the presence of a shallow marine layer. With very low average wind speeds, there is a limited capacity to disperse air contaminants horizontally. The dominant daily wind pattern is an onshore 8- to 12-mile-per-hour (mph) daytime breeze and an offshore 3 to 5 mph nighttime breeze. The typical wind flow pattern fluctuates only with occasional winter storms or strong northeasterly (Santa Ana) winds from the mountains and deserts northeast of the Basin. Summer wind flow patterns represent worst-case conditions because this is the period of higher temperatures and more sunlight, which results in ozone (O₃) formation.

During spring and early summer, pollution produced during any one day is typically blown out of the Basin through mountain passes or lifted by warm, vertical currents adjacent to mountain

slopes. Air contaminants can be transported 60 miles or more from the Basin by ocean air during the afternoons. From early fall to winter, the transport is less pronounced because of slower average wind speed and the appearance of drainage winds earlier in the day. During stagnant wind conditions, offshore drainage winds may begin by late afternoon. Pollutants remaining in the Basin are trapped and begin to accumulate during the night and the following morning. A low morning wind speed in pollutant source areas is an important indicator of air stagnation and the potential for buildup of primary air contaminants.

Temperature normally decreases with altitude, and a reversal of this atmospheric state, where temperature increases with altitude, is called an inversion. The height from the Earth to the inversion base is known as the mixing height. Persistent low inversions and cool coastal air tend to create morning fog and low stratus clouds. Cloudy days are less likely in the eastern portions of the Basin and are about 25 percent more likely along the coast. The vertical dispersion of air pollutants in the Basin is limited by temperature inversions in the atmosphere close to the Earth's surface.

Inversions are generally lower in the nighttime when the ground is cool than during daylight hours when the sun warms the ground and, in turn, the surface air layer. As this heating process continues, the temperature of the surface air layer approaches the temperature of the inversion base, causing heating along its lower edge. If enough warming takes place, the inversion layer becomes weak and opens up to allow the surface air layers to mix upward. This can be seen in the middle to late afternoon on a hot summer day when the smog appears to clear up suddenly. Winter inversions typically break earlier in the day, preventing excessive contaminant buildup.

The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are transported predominantly onshore into Riverside and San Bernardino Counties. In the winter, the greatest pollution problem is accumulation of CO and nitrogen oxides (NO_x) due to extremely low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and NO_x to form photochemical smog.

Air Pollution Constituents and Attainment Status. The Air Resources Board (ARB) coordinates and oversees both State and federal air pollution control programs in California. The ARB oversees activities of local air quality management agencies and maintains air quality monitoring stations throughout the State in conjunction with the Environmental Protection Agency (EPA) and local air districts. The ARB has divided the State into 15 air basins based on meteorological and topographical factors of air pollution. Data collected at these stations are used by the ARB and the EPA to classify air basins as “attainment”, “nonattainment”, “nonattainment-transitional”, or “unclassified”, based on air quality data for the most recent three calendar years compared with the Ambient Air Quality Standards (AAQS). “Nonattainment” areas are imposed with additional restrictions as required by the EPA. The air quality data are also used to monitor progress in attaining air quality standards.

Ozone. O₃ (smog) is formed by photochemical reactions between oxides of nitrogen and reactive organic gases rather than being directly emitted. Ozone is a pungent, colorless gas typical of Southern California smog. Elevated ozone concentrations result in reduced lung function, particularly during vigorous physical activity. This health problem is particularly acute in sensitive receptors such as the sick, the elderly, and young children. Ozone levels peak during summer and early fall. The entire Basin is designated as a “nonattainment” area for the State 1-hour and 8-hour ozone standards. The EPA has officially designated the status for most of the Basin regarding the 8-hour ozone standard as “extreme nonattainment,” which means the Basin has until 2024 to attain the federal 8-hour O₃ standard.

Carbon Monoxide. CO is formed by the incomplete combustion of fossil fuels, almost entirely from automobiles. It is a colorless odorless gas that can cause dizziness, fatigue, and impairment to central nervous system functions. The entire Basin is in “attainment” for the State standards for CO. The Basin is designated as an “attainment/maintenance” area under the federal CO standards.

Nitrogen Oxides. Nitrogen dioxide (NO₂), a reddish-brown gas, and nitric oxide (NO), a colorless odorless gas, are formed from fuel combustion under high temperature or pressure. These compounds are referred to as nitrogen oxides, or NO_x. NO_x is a primary component of the photochemical smog reaction. It also contributes to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition (i.e., acid rain). NO₂ decreases lung function and may reduce resistance to infection. The entire Basin is designated as “nonattainment” for the State NO₂ standard and as an “attainment/maintenance” area under the federal NO₂ standard.

Sulfur Dioxide. Sulfur dioxide (SO₂) is a colorless irritating gas formed primarily from incomplete combustion of fuels containing sulfur. Industrial facilities also contribute to gaseous SO₂ levels. SO₂ irritates the respiratory tract, can injure lung tissue when combined with fine particulate matter, and reduces visibility and the level of sunlight. The entire Basin is in “attainment” with both federal and State SO₂ standards.

Lead. Lead is found in old paints and coatings, plumbing, and a variety of other materials. Once in the blood stream, lead can cause damage to the brain, nervous system, and other body systems. Children are highly susceptible to the effects of lead. The Los Angeles County (County) portion of the Basin was redesignated as “nonattainment” for the State and federal standards for lead in 2010.

Particulate Matter. Particulate matter is the term used for a mixture of solid particles and liquid droplets found in the air. Coarse particles (particulate matter less than 10 microns in diameter [PM₁₀]), derive from a variety of sources, including windblown dust and grinding operations. Fuel combustion and resultant exhaust from power plants and diesel buses and trucks are primarily responsible for fine particle (PM_{2.5}) levels. Fine particles can also be

formed in the atmosphere through chemical reactions. PM_{10} can accumulate in the respiratory system and aggravate health problems such as asthma. The EPA's scientific review concluded that $PM_{2.5}$, which penetrates deeply into the lungs, is more likely than PM_{10} to contribute to the health effects listed in a number of recently published community epidemiological studies at concentrations that extend well below those allowed by the current PM_{10} standards. These health effects include increased hospital admissions, emergency room visits (primarily among the elderly and individuals with cardiopulmonary disease), and premature death; increased respiratory symptoms and disease (children and individuals with cardiopulmonary disease such as asthma); decreased lung function (particularly in children and individuals with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms. The Basin is designated a "nonattainment" area for the federal and State $PM_{2.5}$ standards and a "nonattainment" area for the State PM_{10} standard. The Basin was redesignated as "attainment/maintenance" for the federal PM_{10} standard in 2013.

Reactive Organic Compounds. Reactive organic compounds (ROCs; also known as reactive organic gases (ROGs) and volatile organic compounds [VOCs]) are formed from combustion of fuels and evaporation of organic solvents. ROCs are not defined criteria pollutants but are a prime component of the photochemical smog reaction. Consequently, ROCs accumulate in the atmosphere more quickly during the winter when sunlight is limited and photochemical reactions are slower. As they are not a criteria pollutant, there is no state or federal attainment status for ROGs.

Sulfates. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to SO_2 during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO_2 to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features. The entire Basin is in "attainment" for the State standard for sulfates.

Hydrogen Sulfide. Hydrogen sulfide (H_2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas and can be emitted as the result of geothermal energy exploitation. In 1984, an ARB committee concluded that the ambient standard for H_2S is adequate to protect public health and to significantly reduce odor annoyance. The entire Basin is "unclassified" for the State standard for H_2S .

Table 4.2.A lists the attainment status for criteria pollutants in the Basin.

Table 4.2.A: Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
1-hour Ozone	Nonattainment	N/A
8-hour Ozone	Nonattainment	Extreme Nonattainment
PM ₁₀	Nonattainment	Attainment/Maintenance
PM _{2.5}	Nonattainment	Nonattainment
CO	Attainment	Attainment/Maintenance
NO ₂	Nonattainment	Attainment/Maintenance
SO ₂	Attainment	Attainment
Lead	Nonattainment (Los Angeles County only)	Nonattainment (Los Angeles County only)
All others	Attainment/Unclassified	Attainment/Unclassified

Source: California Air Resources Board (2016) (Website: <http://www.arb.ca.gov/desig/desig.htm>).
 CO = carbon monoxide
 N/A = not available
 NO₂ = nitrogen dioxide
 PM_{2.5} = particulate matter less than 2.5 microns in diameter
 PM₁₀ = particulate matter less than 10 microns in diameter
 SO₂ = sulfur dioxide

Visibility-Reducing Particles. Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size, and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt. The statewide standard is intended to limit the frequency and severity of visibility impairment due to regional haze. The entire Basin is “unclassified” for the State standard for visibility-reducing particles.

Health Effects. Table 4.2.B lists the health effects of the criteria pollutants and their potential sources. Because the State and federal concentration standards were set at levels that protect public health with an adequate margin of safety, these health effects will not occur unless the standards are exceeded by a large margin or for a prolonged period of time.

Regional Air Quality. Both the State of California and the federal government have established health-based AAQS for the criteria air pollutants described previously. As previously discussed, areas that meet AAQSs are classified as “attainment” areas, while areas that do not meet these standards are classified as “nonattainment” areas.

Local Air Quality. The SCAQMD, together with the ARB, maintains ambient air quality monitoring stations in the Basin. The air quality monitoring station closest to the project site is the Long Beach East Pacific Coast Highway Station at 2425 Webster Street. This station is approximately 3 miles to the northwest of the Project site, and its air quality trends are representative of the ambient air quality in the project area. The pollutants monitored at this station are CO, O₃, PM₁₀, NO₂, and SO₂. The closest station that monitors PM_{2.5} is the North Long Beach Station, located approximately 5 miles to the north-northwest of the Project site. The ambient air quality data monitored at these two stations within the past 3 years is listed in Table 4.2.C.

Table 4.2.B: Health Effects Summary of Some of the Major Criteria Air Pollutants

Pollutant	Health Effects	Examples of Sources
Particulate Matter (PM ₁₀ : less than or equal to 10 microns)	<ul style="list-style-type: none"> • Increased respiratory disease • Lung damage • Premature death 	<ul style="list-style-type: none"> • Cars and trucks, especially diesels • Fireplaces, wood stoves • Windblown dust from roadways, agriculture, and construction
Ozone (O ₃)	<ul style="list-style-type: none"> • Breathing difficulties • Lung damage 	Formed by chemical reactions of air pollutants in the presence of sunlight; common sources are motor vehicles, industries, and consumer products
Carbon Monoxide (CO)	<ul style="list-style-type: none"> • Chest pain in heart patients • Headaches, nausea • Reduced mental alertness • Death at very high levels 	Any source that burns fuel such as cars, trucks, construction and farming equipment, and residential heaters and stoves
Nitrogen Dioxide (NO ₂)	Lung damage	See carbon monoxide sources
Toxic Air Contaminants	<ul style="list-style-type: none"> • Cancer • Chronic eye, lung, or skin irritation • Neurological and reproductive disorders 	<ul style="list-style-type: none"> • Cars and trucks, especially diesels • Industrial sources such as chrome platers • Neighborhood businesses such as dry cleaners and service stations • Building materials and products

Source: California Air Resources Board (2005).

Table 4.2.C: Ambient Air Quality Monitored at the Long Beach Stations

Pollutant	Standard	2012	2013	2014
Carbon Monoxide (CO) (2012 from North Long Beach, 2013 & 2014 from 2425 Webster Street)				
Maximum 1-hour concentration (ppm)		4.2	4.1	3.7
Number of days exceeded:	State: > 20 ppm	0	0	0
	Federal: > 35 ppm	0	0	0
Maximum 8-hour concentration (ppm)		2.57	2.6	2.6
Number of days exceeded:	State: ≥ 9.0 ppm	0	0	0
	Federal: ≥ 9 ppm	0	0	0
Ozone (O₃) (2425 Webster Street)				
Maximum 1-hour concentration (ppm)		0.080	0.090	0.087
Number of days exceeded:	State: > 0.09 ppm	0	0	0
Maximum 8-hour concentration (ppm)		0.067	0.070	0.072
Number of days exceeded:	State: > 0.07 ppm	0	0	1
	Federal: > 0.075 ppm	0	0	0
Coarse Particulates (PM₁₀) (2012 & 2013 from North Long Beach, 2014 from 2425 Webster Street)				
Maximum 24-hour concentration (µg/m ³)		45	37	84
Number of days exceeded:	State: > 50 µg/m ³	0	0	3
	Federal: > 150 µg/m ³	0	0	0
Annual arithmetic average concentration (µg/m ³)		23.2	N/A	29.5
Exceeded for the year:	State: > 20 µg/m ³	Yes	N/A	Yes
Fine Particulates (PM_{2.5}) (North Long Beach)				
Maximum 24-hour concentration (µg/m ³)		49.8	47.2	51.5
Number of days exceeded:	Federal: > 35 µg/m ³	4	2	2
Annual arithmetic average concentration (µg/m ³)		10.6	10.9	11.0
Exceeded for the year:	State: > 12 µg/m ³	No	No	No
	Federal: > 15 µg/m ³	No	No	No
Nitrogen Dioxide (NO₂) (2425 Webster Street)				
Maximum 1-hour concentration (ppm)		0.077	0.082	0.136
Number of days exceeded:	State: > 0.18 ppm	0	0	0
	Federal: > 0.10 ppm	0	0	2
Annual arithmetic average concentration (ppm)		0.020	0.036	0.036
Exceeded for the year:	State: > 0.030 ppm	No	Yes	Yes
	Federal: > 0.053 ppm	No	No	No
Sulfur Dioxide (SO₂) (2425 Webster Street)				
Maximum 24-hour concentration (ppm)		0.003	0.001	0.003
Number of days exceeded:	State: > 0.04 ppm	0	0	0
Maximum 1-hour concentration (ppm)		0.004	0.003	0.015
Number of days exceeded:	State: > 0.25 ppm	No	No	No
	Federal: > 0.075 ppm	No	No	No

Sources: United States Environmental Protection Agency. Website: http://www.epa.gov/airdata/ad_maps.html; and California Air Resources Board. Website: www.arb.ca.gov/adam/welcome.html.

µg/m³ = micrograms per cubic meter

ARB = California Air Resources Board

EPA = United States Environmental Protection Agency

N/A = not available

ppm = parts per million

The ambient air quality data in Table 4.2.C show that SO₂ and CO levels are below the relevant State and federal standards. The State 8-hour O₃ standards were exceeded once in 2014. The State 24-hour PM₁₀ standard was exceeded three times in 2014, but has not exceeded the federal 24-hour standard. The federal 24-hour PM_{2.5} standard was exceeded from 2 to 4 times per year during the last 3 years. The federal 1-hour NO₂ standard was exceeded twice in 2014.

4.2.3 Regulatory Setting

Federal Regulations and Standards. Pursuant to the federal Clean Air Act (CAA) of 1970, the EPA established national ambient air quality standards (NAAQS). The NAAQS were established for six major pollutants termed “criteria” pollutants. Criteria pollutants are defined as those pollutants for which the federal and State governments have established AAQS, or criteria, for outdoor concentrations in order to protect public health. The NAAQS are shown in Table 4.2.D.

Data collected at permanent monitoring stations are used by the EPA to classify regions as “attainment” or “nonattainment,” depending on whether the regions met the requirements stated in the primary NAAQS. “Nonattainment” areas are imposed with additional restrictions as required by the EPA.

The EPA has designated the Southern California Association of Governments (SCAG) as the Metropolitan Planning Organization (MPO) responsible for ensuring compliance with the requirements of the CAA for the Basin.

The EPA established new national air quality standards for ground-level ozone and fine particulate matter in 1997. On May 14, 1999, the Court of Appeals for the District of Columbia Circuit issued a decision ruling that the CAA, as applied in setting the new public health standards for ozone and particulate matter, was unconstitutional as an improper delegation of legislative authority to the EPA. On February 27, 2001, the United States Supreme Court upheld the way the government sets air quality standards under the CAA. The Court unanimously rejected industry arguments that the EPA must consider financial costs as well as health benefits in writing standards. The justices also rejected arguments that the EPA took too much lawmaking power from Congress when it set tougher standards for ozone and soot in 1997. Nevertheless, the court dismissed the EPA’s policy for implementing new ozone rules, saying that the agency ignored a section of the law that restricts its authority to enforce such rules.

In April 2003, the EPA was cleared by the White House Office of Management and Budget (OMB) to implement the 8-hour ground-level ozone standard. The EPA issued the proposed rule implementing the 8-hour ozone standard in April 2003. The EPA completed final 8-hour “nonattainment” status on April 15, 2004. The EPA revoked the 1-hour ozone standard on June 15, 2005, and lowered the 8-hour O₃ standard from 0.08 parts per million (ppm) to 0.075 ppm on April 1, 2008.

The EPA issued the final PM_{2.5} implementation rule in fall 2004. The EPA lowered the 24-hour PM_{2.5} standard from 65 to 35 micrograms per cubic meter (µg/m³) and revoked the annual PM₁₀ standard on December 17, 2006. The EPA issued final designations for the 2006 24-hour PM_{2.5} standard on December 12, 2008.

Table 4.2.D: Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards ¹		Federal Standards ²			
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷	
Ozone (O ₃)	1-Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	--	Same as Primary Standard	Ultraviolet Photometry	
	8-Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)			
Respirable Particulate Matter (PM ₁₀) ⁸	24-Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	20 µg/m ³		--			
Fine Particulate Matter (PM _{2.5}) ⁸	24-Hour	No Separate State Standard		35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ³			15.0 µg/m ³
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m ³)	None	Non-Dispersive Infrared Photometry (NDIR)	
	1-Hour	20 ppm (23 mg/m ³)		35 ppm (40 mg/m ³)			
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		—			—
Nitrogen Dioxide (NO ₂) ⁹	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m ³)	Same as Primary Standard	Gas Phase Chemiluminescence	
	1-Hour	0.18 ppm (339 µg/m ³)		100 ppb (188 µg/m ³)			—
Sulfur Dioxide (SO ₂) ¹⁰	Annual Arithmetic Mean	—	Ultraviolet Fluorescence	0.030 ppm (for certain areas) ¹⁰	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)	
	24-Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ¹⁰			
	3-Hour	—		—			0.5 ppm (1300 µg/m ³)
	1-Hour	0.25 ppm (655 µg/m ³)		75 ppb (196 µg/m ³)			—
Lead ^{11,12}	30-Day Average	1.5 µg/m ³	Atomic Absorption	—	—	High-Volume Sampler and Atomic Absorption	
	Calendar Quarter	—		1.5 µg/m ³ (for certain areas) ¹²			
	Rolling 3-Month Average ¹¹	—		0.15 µg/m ³			
Visibility- Reducing Particles ¹³	8-Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No			
Sulfates	24-Hour	25 µg/m ³	Ion Chromatography	Federal			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence	Standards			
Vinyl Chloride ¹¹	24-Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography	Standards			

Source: California Air Resources Board (October 1, 2015).

Footnotes:

¹ California standards for ozone; carbon monoxide (except Lake Tahoe); sulfur dioxide (1- and 24-hour); nitrogen dioxide; suspended particulate matter - PM₁₀, PM_{2.5} and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

² National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once per year. The ozone standard is attained when the fourth-highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM₁₀, the 24-hour

standard is attained when the expected number of days per calendar year with a 24-hour average concentration above $150 \mu\text{g}/\text{m}^3$ is equal to or less than one. For $\text{PM}_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact the EPA for further clarification and current federal policies.

- 3 Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- 4 Any equivalent procedure which can be shown to the satisfaction of ARB to give equivalent results at or near the level of the air quality standard may be used.
- 5 National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- 6 National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- 7 Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
- 8 On December 14, 2012, the national annual $\text{PM}_{2.5}$ primary standard was lowered from $15 \mu\text{g}/\text{m}^3$ to $12 \mu\text{g}/\text{m}^3$. The existing national 24-hour $\text{PM}_{2.5}$ standards (primary and secondary) were retained at $35 \mu\text{g}/\text{m}^3$, as was the annual secondary standard of 15. The existing 24-hour PM_{10} standards (primary and secondary) of $150 \mu\text{g}/\text{m}^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
- 9 To attain the 1-hour standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum 1-hour average at each monitor within an area must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
- 10 On June 2, 2010, the new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard, the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
- 11 The ARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- 12 The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard ($1.5 \mu\text{g}/\text{m}^3$ as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standards are approved.
- 13 In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basins, respectively.

$^\circ\text{C}$ = degrees Celsius

ARB = California Air Resources Board

EPA = United States Environmental Protection Agency

$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter

mg/m^3 = milligrams per cubic meter

ppm = parts per million

ppb = parts per billion

State Regulations and Standards. In 1967, the California Legislature passed the Mulford-Carrell Act, which combined two Department of Health bureaus: the Bureau of Air Sanitation and the Motor Vehicle Pollution Control Board, in order to establish ARB. Since its formation, ARB has worked with the public, the business sector, and local governments to find solutions to California's air pollution problems.

The ARB identified particulate emissions from diesel-fueled engines (diesel particulate matter [DPM]) as toxic air contaminants (TACs) in August 1998. Following the identification process, ARB was required by law to determine whether there is a need for further control. In September 2000, the ARB adopted the Diesel Risk Reduction Plan (Diesel RRP), which recommends many control measures to reduce the risks associated with DPM and to achieve the goal of 85 percent DPM reduction by 2020.

California Green Building Code. California Green Buildings Standards Code (Cal Green Code) (California Code of Regulations [CCR], Title 24, Part 11) was adopted by the California Building Standards Commission in 2010 and became effective in January 2011. The Code applies to all new constructed residential, nonresidential, commercial, mixed-use, and State-owned facilities, as well as schools and hospitals. Cal Green Code is comprised of Mandatory Residential and Nonresidential Measures and more stringent Voluntary Measures (TIERS I and II).

Mandatory Measures are required to be implemented on all new construction projects and consist of a wide array of green measures concerning project site design, water use reduction, improvement of indoor air quality, and conservation of materials and resources. The Cal Green Code refers to Title 24, Part 6, compliance with respect to energy efficiency; however, it encourages 15 percent energy use reduction over that required in Part 6. Voluntary Measures are optional, more stringent measures that may be used by jurisdictions that strive to enhance their commitment towards green and sustainable design and achievement of Assembly Bill (AB) 32 goals. Under TIERS I and II, all new construction projects are required to reduce energy consumption by 15 percent and 30 percent, respectively, below the baseline required under the California Energy Commission (CEC), as well as implement more stringent green measures than those required by mandatory code.

Local Regulations and Policies.

There are a number of local regulations and policies related to air quality, as described below.

Regional Air Quality Planning Framework. The 1976 Lewis Air Quality Management Act established the SCAQMD and other air districts throughout the State. The federal CAA Amendments of 1977 required that each state adopt an implementation plan outlining pollution control measures to attain the federal standards in nonattainment areas of the state.

The ARB is responsible for incorporating air quality management plans for local air basins into a State Implementation Plan (SIP) for EPA approval. Significant authority for air quality control

within the local air basins has been given to local air districts that regulate stationary source emissions and develop local nonattainment plans.

Regional Air Quality Management Plan. The SCAQMD and the SCAG are responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the Basin. Every 3 years, the SCAQMD prepares a new AQMP, updating the previous plan and having a 20-year horizon. The SCAQMD adopted the 2012 AQMP in December 2012. The ARB approved it on January 23, 2013, and forwarded it to the EPA for review and approval. The 2012 AQMP incorporates the latest scientific and technological information and planning assumptions, including the 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and updated emission inventory methodologies for various source categories. The 2012 AQMP included the new and changing federal requirements, the implementation of new technology measures, and continued development of economically sound, flexible compliance approaches.

City of Long Beach General Plan. The Air Quality Element (1996) of the City's General Plan includes goals and polices related to air quality. The following goals and policies are applicable to the proposed Project:

Goal 6: Minimize particulate emissions from the construction and operation of roads and buildings, from mobile sources, and from the transportation, handling and storage materials.

Policy 6.1: *Control Dust.* Further reduce particulate emissions from roads, parking lots, construction sites, unpaved alleys, and port operations and related uses.

Goal 7: Reduce emissions through reduced energy consumption.

Policy 7.1: *Energy Conservation.* Reduce energy consumption through conservation improvements and requirements.

4.2.4 Impact Significance Criteria

The thresholds for impacts related to air quality used in this analysis are consistent with Appendix G of the *State CEQA Guidelines*. The proposed Project may be deemed to have a significant impact with respect to air quality if it would:

Threshold 4.2.1: Conflict with or obstruct implementation of the applicable air quality plan;

Threshold 4.2.2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

- Threshold 4.2.3:** Result in a cumulative considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for O₃ precursors);
- Threshold 4.2.4:** Expose sensitive receptors to substantial pollutant concentrations; or
- Threshold 4.2.5:** Create objectionable odors affecting a substantial number of people.

The Initial Study (IS)/NOP prepared for the proposed Project identified potential significant adverse impacts related to a potential conflict with air quality plans, violation of air quality standards, cumulatively considerable increase of criteria pollutants, and exposure of sensitive receptors to substantial air quality pollutant concentrations. Although the proposed Project would result in temporary odors associated with construction equipment (i.e., diesel-powered equipment and asphalt paving), these impacts would be temporary and would not result in long-term odor impacts. The proposed Project may also result in the generation of odors related to food service. These odors are not anticipated to be objectionable and would not result in permanent impacts related to odors on adjacent sensitive users. Therefore, impacts related to Project-generated odors (Threshold 4.2.5) will not be discussed further in this EIR. Refer to Appendix A, IS/NOP, for additional discussion.

California Environmental Quality Act (CEQA) Baseline. At the time the NOP was issued, the Project site contained both the Belmont Pool facilities and the outdoor temporary pool (opened in December 2013 to provide swimming facilities while the permanent facility was under construction). Although the site contained the former Belmont Pool building at the time of the NOP, the facility was subsequently demolished in February 2015 to alleviate an imminent public safety threat due to the seismically unsafe condition of the building.

The inclusion of the former pool building in the assessment of air quality impacts is appropriate because the former facility was present on the site for approximately 45 years and represents the historic uses of the site and the historic air quality conditions of the site. The substantial evidence of recent historical use supports the determination that utilizing the Belmont Pool building as the baseline for air quality impacts is appropriate.

SCAQMD Criteria. In addition to the federal and State AAQS, there are daily and quarterly emissions thresholds for construction and operation of a proposed project in the Basin. The Basin is administered by the SCAQMD, and guidelines and emissions thresholds established by the SCAQMD in its *CEQA Air Quality Handbook* (1993) are used in the air quality analysis (Appendix B). The emission thresholds were established based on the “attainment” status of the air basin in regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety (EPA), these emission thresholds are regarded as conservative and would overstate an individual project’s contribution to health risks.

Thresholds for Construction Emissions. The following CEQA significance thresholds for construction emissions have been established for the Basin:

- 75 pounds per day (lbs/day) of ROCs
- 100 lbs/day of NO_x
- 550 lbs/day of CO
- 150 lbs/day of PM₁₀
- 55 lbs/day of PM_{2.5}
- 150 lbs/day of sulfur oxides (SO_x)

Projects in the Basin with construction-related emissions that exceed any of the emission thresholds are considered to be significant short-term adverse air quality impacts under the SCAQMD guidelines and under CEQA.

Thresholds for Operational Emissions. The daily operational emissions significance thresholds established for the Basin by the SCAQMD are as follows.

Emission Thresholds for Pollutants with Regional Effects. Projects with operation-related emissions that exceed any of the emission thresholds listed below are considered significant under SCAQMD guidelines.

- 55 lbs/day of ROCs
- 55 lbs/day of NO_x
- 550 lbs/day of CO
- 150 lbs/day of PM₁₀
- 55 lbs/day of PM_{2.5}
- 150 lbs/day of SO_x

Local Microscale Concentration Standards. The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below State and federal CO standards. If ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or federal standard, project emissions are considered significant if they increase 1-hour CO concentrations by 1.0 ppm or more or 8-hour CO concentrations by 0.45 ppm or more. The following are applicable local emission concentration standards for CO:

- California State 1-hour CO standard of 20.0 ppm
- California State 8-hour CO standard of 9.0 ppm

Localized Significance Thresholds. For this Project, the appropriate Source Receptor Area (SRA) for Localized Significance Thresholds (LST) is South Coastal Los Angeles County, according to the SRA/City Table on the SCAQMD LST website.¹ The Project site is approximately 5 acres. The sensitive land uses within the vicinity of the proposed Project include the existing Belmont Shores Children’s Center (Preschool/Child Care) facility located within 25 feet (ft) from the northern Project construction boundary, residences across East Ocean Boulevard to the northeast located approximately 100 ft from the northern Project construction boundary, and residences across Termino Avenue to the northwest located approximately 80 ft from the western Project construction boundary. According to the LST guidelines, the shortest distance that can be used is 25 meters (m) (82 ft). Therefore, the following thresholds apply for this Project.

Construction thresholds for a 5-acre site:

- 123 lbs/day of NO_x at 25 m
- 1,530 lbs/day of CO at 25 m
- 14 lbs/day of PM₁₀ at 25 m
- 8 lbs/day of PM_{2.5} at 25 m

Operational thresholds for a 5-acre site:

- 123 lbs/day of NO_x at 25 m
- 1,530 lbs/day of CO at 25 m
- 4 lbs/day of PM₁₀ at 25 m
- 2 lbs/day of PM_{2.5} at 25 m

4.2.5 Project Impacts

Air pollutant emissions associated with the proposed Project would occur over the short term from construction activities such as fugitive dust from site preparation and grading, and emissions from equipment exhaust. There would be long-term regional emissions associated with Project-related vehicular trips and stationary source emissions such as natural gas used for heating.

Threshold 4.2.1: Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant Impact. An AQMP describes air pollution control strategies to be taken by a city, county, or region classified as a “nonattainment” area. The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. CEQA requires that certain proposed projects be analyzed for consistency with the AQMP. For a project to be

¹ South Coast Air Quality Management District. Website: www.aqmd.gov/ceqa/handbook/LST/LST.html.

consistent with the AQMP adopted by the SCAQMD, the pollutants emitted from the project should not exceed the SCAQMD daily threshold or cause a significant impact on air quality, or the project must already have been included in the AQMP projection. However, if feasible mitigation measures are implemented and shown to reduce the impact level from significant to less than significant, a project may be deemed consistent with the AQMP. The AQMP uses the assumptions and projections of local planning agencies to determine control strategies for regional compliance status. Since the AQMP is based on local General Plans, projects that are deemed consistent with the General Plan are found to be consistent with the AQMP. As described below, the proposed Project would not result in significant operational air quality impacts, contribute to an ozone exceedance at a nearby monitoring station, or cause the area to be inconsistent with the regional AQMP. Furthermore, because the proposed Project does not require a General Plan Amendment and is consistent with the site's current General Plan land use designation, emissions associated with the proposed Project are not anticipated to exceed the General Plan projections or contribute to air quality deterioration beyond SCAQMD projects. Therefore, the proposed Project would be consistent with the General Plan and the Final 2012 AQMP, and no mitigation is required.

General Plan Air Quality Element Policy Analysis. The City's General Plan Air Quality Element (1996) includes goals and policies related to air quality that apply to the proposed Project. As specified in Standard Conditions 4.2.1 and 4.2.2., the proposed Project would be required to adhere to a variety of measures aimed at controlling dust during Project construction, consistent with General Plan Air Quality Element Policy 6.1, which states that it is a policy of the City to "further reduce particulate emissions from roads, parking lots, construction sites, unpaved alleys, and port operations and related uses."

The stationary source emissions from the proposed land uses would come primarily from consumption of natural gas and electricity. As described in Chapter 3.0, Project Description, the proposed Project would implement a variety of Conservation and Sustainability features aimed at reducing energy consumption. Additionally, the proposed Project would be built to meet Leadership in Energy and Environmental Design (LEED) Gold (or higher) certification standards. Several proposed design features would be implemented to assist in reaching the LEED certification through reducing water and energy consumption. Examples of some of the proposed pool features include the use of energy-efficient pumping equipment, the low-water filtration system, the direct fire heating system, the light-emitting diode pool lighting, pool blankets, and the thermal solar heating system. Incorporation of these features would minimize pollution and reduce source emissions consistent with General Plan Air Quality Element Policy 7.1. Furthermore, the proposed Project would be compliant with all Mandatory Measures outlined in the Cal Green Code aimed at the improvement of air quality. Therefore, because the proposed Project would be consistent with the City's General Plan Air Quality Element, the Cal Green Code, and the Final 2012 AQMP, the proposed Project would have a less than significant impact related to conflict with applicable goals and policies established in the City's General Plan Air Quality Element, and no mitigation would be required.

Threshold 4.2.2: Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less than Significant Impact.

Construction. Construction activities produce combustion emissions from various sources such as utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, and motor vehicles transporting the construction crew. Exhaust emissions from construction activities envisioned on site would vary daily as construction activity levels change. The use of construction equipment on the site would result in localized exhaust emissions.

Equipment Exhaust and Related Construction Activities. The most recent version of the CalEEMod model (Version 2013.2.2) was used to calculate the construction emissions, as shown in Table 4.2.E. These emissions are the combination of the on- and off-site emissions. Compliance with SCAQMD Rules, including Rule 403, has been included in the calculations of construction emissions. The emissions rates shown in Table 4.2.E are from the CalEEMod output tables listed as “Mitigated Construction,” even though the only measures that have been applied to the analysis are the required construction emissions control measures (see Standard Conditions 4.2.1 and 4.2.2). As shown in Table 4.2.E, with incorporation of these SCAQMD Rules and emission control measures, construction emissions would not exceed any of the SCAQMD’s thresholds.

Table 4.2.E: Short-Term Regional Construction Emissions

Construction Phase	Total Regional Pollutant Emissions (lbs/day)							
	ROC	NO _x	CO	SO _x	Fugitive PM ₁₀	Exhaust PM ₁₀	Fugitive PM _{2.5}	Exhaust PM _{2.5}
Demolition	4.3	45	37	0.050	1.2	2.2	0.23	2.0
Site Preparation	4.9	52	40	0.042	7.2	2.8	3.9	2.5
Grading	3.7	39	28	0.039	2.9	2.1	1.4	1.9
Building Construction	3.5	28	23	0.039	0.72	1.8	0.19	1.7
Architectural Coating	37	2.1	2.4	0.0045	0.12	0.15	0.033	0.15
Paving	1.9	17	15	0.024	0.17	0.94	0.045	0.86
Peak Daily Emissions	41	52	40	0.05	10		6.4	
SCAQMD Thresholds	75	100	550	150	150		55	
Significant Emissions?	No	No	No	No	No		No	

Source: LSA Associates, Inc. (March 2016).

CO = carbon monoxide

CO_{2e} = carbon dioxide equivalent

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

ROC = reactive organic compounds

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

Fugitive Dust. Fugitive dust emissions are generally associated with land clearing, exposure, and cut-and-fill operations. Dust generated daily during construction would vary substantially, depending on the level of activity, the specific operations, and weather conditions. Nearby sensitive receptors and on-site workers may be exposed to blowing dust, depending upon prevailing wind conditions. Fugitive dust would also be generated as construction equipment or trucks travel on unpaved areas of the construction site. The PM₁₀ and PM_{2.5} emissions are included in construction emissions listed in Table 4.2.E. As shown, the emissions would not exceed the SCAQMD’s thresholds. Although no mitigation is required for these constituents, the proposed Project would comply with SCAQMD Standard Condition 4.2.2 and Rule 403 to control fugitive dust.

Operation. Long-term air pollutant emission impacts are those associated with stationary sources and mobile sources involving any project-related changes. The proposed Project would increase the size of the on-site pools. The stationary source emissions would come from many sources, including the use of consumer products, landscape equipment, general energy, and solid waste. Based on trip generation factors (LSA Associates, Inc. [LSA], March 2016), long-term operational emissions associated with the existing land uses and the proposed Project, calculated with the CalEEMod model, are shown in Table 4.2.F. Area sources include architectural coatings, consumer products, and landscaping. Energy sources include natural gas consumption for heating. Table 4.2.F shows that the increase of all criteria pollutants would not exceed the corresponding SCAQMD daily emission thresholds for any criteria pollutants. Therefore, Project-related long-term air quality impacts would be less than significant, and no mitigation is required.

Table 4.2.F: Long-Term Regional Operational Emissions

Source	Pollutant Emissions (lbs/day)					
	ROC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Existing Land Use						
Area Sources	6.4	0.00007	0.0072	0	0.00003	0.00003
Energy Sources	0.029	0.27	0.22	0.0016	0.02	0.02
Mobile Sources	3.4	7.8	32	0.063	4.3	1.2
Total	9.8	8.1	32	0.065	4.3	1.2
Proposed Development						
Area Sources	3.3	0.00013	0.014	0	0.00005	0.00005
Energy Sources	0.070	0.63	0.53	0.0038	0.048	0.048
Mobile Sources	7.1	17	67	0.18	12	3.4
Total	10	18	68	0.18	12	3.4
Net Increase	0.2	9.9	36	0.12	7.7	2.2
SCAQMD Thresholds	55	55	550	150	150	55
Significant?	No	No	No	No	No	No

Source: LSA Associates, Inc. (March 2016).

CO = carbon monoxide

lbs/day = pounds per day

NO_x = nitrogen oxides

PM_{2.5} = particulate matter less than 2.5 microns in size

PM₁₀ = particulate matter less than 10 microns in size

ROCs = reactive organic compounds

SCAQMD = South Coast Air Quality Management District

SO_x = sulfur oxides

Threshold 4.2.3: Would the project result in a cumulative considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for O₃ precursors)?

Less than Significant Impact. As discussed above, projected construction, operational, and LST emissions of criteria pollutants as a result of the proposed Project are expected to be below the emissions thresholds established for the region. Cumulative emissions are part of the emission inventory included in the AQMP for the Project area. Therefore, there would be no cumulatively considerable net increase of the criteria pollutants that are in “nonattainment” status in the Basin, and Project impacts would have a less than significant impact; no mitigation is required.

Threshold 4.2.4: Would the project expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact.

Localized Construction Emissions. Construction activities associated with the proposed Project would result in air quality impacts from various sources, such as soil disturbance and equipment exhaust. Based on equipment-specific grading rates provided by the SCAQMD, the proposed Project could result in the maximum disturbance of the entire Project site on any 1 day during the grading phase. The following analysis was performed in accordance with the *SCAQMD Final Localized Significance Threshold (LST) Methodology* (June 2003). The sensitive land uses within the vicinity of the proposed Project include the existing Belmont Shores Children’s Center (Preschool/Child Care) facility located within 25 feet of the northern boundary of the Project site, residences approximately 80 ft to the west, and residences across East Ocean Boulevard approximately 100 ft to the northeast of the Project site.

The closest sensitive receptors to the various construction phases are located within the shortest distance allowed in the LST Guidelines (25 m [82 ft]) and, therefore, LST values for 25 m were used. Table 4.2.G shows the construction-related emissions of NO_x, CO, PM₁₀, and PM_{2.5} compared to the LSTs for South Coastal Los Angeles County at distances of 25 m.

Table 4.2.G: Summary of Construction Emissions, Localized Significance

Construction Activity	Emission Rates (lbs/day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Construction Equipment	52	39	9.8	6.4
Localized Significance Threshold (at 25 m)	123	1,530	14	8.0
Exceed Significance?	No	No	No	No

Source: LSA Associates, Inc. (March 2016).

CO = carbon monoxide
 lbs/day = pounds per day
 m = meters

NO_x = nitrogen oxides
 PM₁₀ = particulate matter less than 10 microns in diameter
 PM_{2.5} = particulate matter less than 2.5 microns in diameter

Fugitive dust emissions would occur during construction of the proposed Project as a result of demolition, grading, and the exposure of soils to the air and wind. The SCAQMD has established a fugitive dust emissions threshold of 14 lbs/day. To reduce fugitive dust emissions, the Project would be required to comply with SCAQMD Standard Conditions and Rule 403, as specified in Standard Conditions 4.2.1 and 4.2.2. As shown in Table 4.2.G, fugitive dust emissions would be 9.8 lbs/day for PM₁₀ and 6.4 lbs/day for PM_{2.5}. These emissions would be below the SCAQMD's thresholds of 14 lbs/day for PM_{2.5} and 8.0 lbs/day for PM_{2.5}. Therefore, with implementation of Standard Conditions 4.2.1 and 4.2.2, no significant impacts to sensitive receptors related to fugitive dust during Project construction would occur.

As previously stated, CalEEMOD (Version 2013.2.2) was also used to calculate construction emissions for CO and NO_x. As shown in Table 4.2.G, CO and NO_x emissions during construction would not exceed SCAQMD thresholds. Therefore, the Project construction would result in less than significant air quality impacts related to CO and NO_x emissions, and no mitigation is required.

Localized Operational Emissions. As previously stated, long-term operational criteria pollutant emission impacts are those associated with stationary and mobile sources. Table 4.2.H shows the calculated emissions for the proposed operational activities compared with the appropriate localized significance thresholds. The emissions shown include all stationary sources and 5 percent of the mobile sources, which is an estimate of the amount of Project-related vehicle traffic that would occur on site.

Table 4.2.H: Summary of Operational Localized Significance

	Emission Rates (lbs/day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Proposed Project	0.85	3.4	0.60	0.17
Localized Significance Threshold	123	1,530	4.0	2.0
Exceed Significance?	No	No	No	No

Source: LSA Associates, Inc. (March 2016).

CO = carbon monoxide

PM₁₀ = particulate matter less than 10 microns in diameter

lbs/day = pounds per day

PM_{2.5} = particulate matter less than 2.5 microns in diameter

NO_x = nitrogen oxides

Table 4.2.H shows that the maximum emissions from Project operation would not cause or contribute to an exceedance of the most stringent applicable federal or State AAQS. Therefore, operation of the proposed Project would not result in a significant impact on local air quality related to CO, NO_x, or other criteria pollutants, and would not expose sensitive receptors to substantial pollutant concentrations. No mitigation would be required.

Long-Term Microscale (CO Hot-Spot) Analysis. The primary mobile source pollutant of local concern is CO, which is a direct function of vehicle idling time and, thus, traffic flow conditions. CO transport is extremely limited; it disperses rapidly with distance from the source under normal meteorological conditions. However, under certain extreme

meteorological conditions, CO concentrations proximate to a congested roadway or intersection may reach unhealthful levels affecting local sensitive receptors (residents, school children, the elderly, and hospital patients, etc.). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service (LOS) or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

As shown in Table 4.2.C, the proposed Project is located within an area with low background CO concentrations. In addition, a traffic evaluation (LSA, March 2016) determined that the intersections within the Project area would operate at an LOS of A, B, or C, all within the City's limit of satisfactory operations. Because the intersections evaluated for the proposed Project would not be congested, and because the Project area has low background CO levels, the likelihood for CO concentrations to reach unhealthful levels is low. Therefore, the proposed Project would not have a significant impact on local air quality for CO, and no mitigation measures would be required.

4.2.6 Cumulative Impacts

The cumulative study area for air quality analysis is the Basin, and air quality conformance is overseen by the SCAQMD. Each project in the Basin is required to comply with SCAQMD rules and regulations. The proposed Project would not result in significant operational air quality impacts, contribute to an O₃ exceedance at a nearby monitoring station, cause the area to be in noncompliance with the AQMP, or result in a significant health risk for any of the analyzed pollutants. As described further in Section 4.12, Transportation and Traffic, there would not be a significant cumulative traffic impact, and so there would not be a cumulative traffic emissions impact. Therefore, the proposed Project air quality emissions, when considered in combination with the cumulative projects within the Project vicinity would be incremental and would not result in cumulatively considerable impacts.

4.2.7 Level of Significance Prior to Mitigation

The following air quality impacts are less than significant and do not require mitigation: (1) consistency with air quality plans, (2) operational emissions, (3) criteria pollutants, and (4) exposure of sensitive receptors to substantial pollutant concentrations. However, to further reduce fugitive dust emissions, the proposed Project would be required to comply with SCAQMD Rule 402 and 403, as specified in Standard Conditions 4.2.1 and 4.2.2.

4.2.8 Standard Conditions

Applicable dust suppression techniques from SCAQMD's *CEQA Air Quality Handbook* and Rule 403 measures are summarized below. Implementation of these dust suppression techniques would reduce fugitive dust generation. Compliance with these rules would reduce impacts from fugitive dust on nearby sensitive receptors.

Standard Condition 4.2.1: **Construction Emissions.** The proposed Project is required to comply with regional rules that assist in reducing short-term air pollutant emissions. The South Coast Air Quality Management District (SCAQMD) Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Applicable dust suppression techniques from Rules 403 and 402 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the particulate matter less than 10 microns in diameter [PM₁₀] component).

Standard Condition 4.2.2: **Applicable Rules 403 and 402 Measures.** The Project construction contractor shall develop and implement dust-control methods that shall achieve this control level in a SCAQMD Rule 403 dust control plan, designate personnel to monitor the dust control program, and order increased watering, as necessary, to ensure a 55 percent control level. Those duties shall include holiday and weekend periods when work may not be in progress. Additional control measures to reduce fugitive dust shall include, but are not limited to, the following:

- Apply water twice daily, or nontoxic soil stabilizers according to manufacturers' specifications, to all unpaved parking or staging areas or unpaved road surfaces or as needed to areas where soil is disturbed.
- Use low-sulfur fuel for stationary construction equipment. This is required by SCAQMD Rules 431.1 and 431.2.
- During earthmoving or excavation operations, fugitive dust emissions shall be controlled by regular watering or other dust-preventive measures using the following procedures:
 - All material excavated shall be sufficiently watered to prevent excessive amounts of dust. Watering, with complete coverage, shall occur at least twice daily, preferably in the late morning and after work is done for the day.
 - All earthmoving or excavation activities shall cease during periods of high winds (i.e., winds greater than 20 miles per hour [mph] averaged over 1 hour).
 - All material transported off site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust.

- o The area disturbed by earthmoving or excavation operations shall be minimized at all times.
 - After earthmoving or excavation operations, fugitive dust emissions shall be controlled using the following measures:
 - o Portions of the construction area to remain inactive longer than a period of 3 months shall be revegetated and watered until cover is grown.
 - o All active portions of the construction site shall be watered to prevent excessive amounts of dust.
 - At all times, fugitive dust emissions shall be controlled using the following procedures:
 - o On-site vehicle speed shall be limited to 15 mph.
 - o Road improvements shall be paved as soon as feasible, watered periodically, or chemically stabilized.
 - At all times during the construction phase, ozone precursor emissions from mobile equipment shall be controlled using the following procedures:
 - o Equipment engines shall be maintained in good condition and in proper tune according to manufacturers' specifications.
 - o On-site mobile equipment shall not be left idling for a period longer than 60 seconds.
 - Outdoor storage piles of construction materials shall be kept covered, watered, or otherwise chemically stabilized with a chemical wetting agent to minimize fugitive dust emissions and wind erosion.

4.2.9 Level of Significance after Mitigation

There are no significant air quality impacts; therefore, no mitigation measures are required. However, implementation of Standard Conditions 4.2.1 and 4.2.2 would minimize the proposed Project's fugitive dust impacts to air quality. With adherence to these Standard Conditions, there would be no significant and unavoidable impacts of the proposed Project related to Air Quality.

4.3 BIOLOGICAL RESOURCES

This section describes the existing biological resources on and in the vicinity of the site for the proposed Belmont Pool Revitalization (proposed Project), the potential impacts of the proposed Project on those resources, and measures to avoid, minimize, and/or mitigate those impacts. The information and analyses provided in this section are summarized from the following technical documents:

- Belmont Plaza Project Biological Survey Memorandum (LSA Associates, Inc. [LSA], May 2013)
- Preconstruction Nesting Bird and Bat Roost Surveys Prior to Belmont Pool Demolition Memorandum (LSA, August 2014)
- Follow-up Preconstruction Nesting Bird Survey for the Belmont Veterans Memorial Pier Parking Lot Project, City of Long Beach, California (LSA, April 2015)

These documents are provided jointly as Appendix C.

Scoping Process

The City of Long Beach (City) distributed the first Notice of Preparation (NOP) for this Draft Environmental Impact Report (EIR) from April 18 to May 17, 2013. The City received three comment letters in response to the original NOP. No comment letter associated with Biological Resources was received in response to the original NOP circulated for the proposed Project. Due to revisions in the Project Description, the City re-issued and circulated the NOP for the EIR between April 9, 2014, and May 8, 2014. The City received five comment letters in response to the re-issued NOP during the public review period. No Biological Resources-related issues were raised in those comment letters.

4.3.1 Methodology

Literature Review. A literature review was conducted to determine potential occurrence of special-status plant and animal species on or in the immediate vicinity of the Project site. Database records for the *Long Beach, San Pedro, Torrance, Inglewood, South Gate, Whittier, Los Alamitos, and Seal Beach, California*, United States Geological Survey (USGS) 7.5-minute quadrangles were reviewed on April 11, 2013, and June 12, 2014, using the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB) *Rarefind 4* and *Rarefind 5* (CDFW, CNDDDB 2014-Biogeographic Data Branch) and the California Native Plant Society (CNPS) *Electronic Inventory of Rare and Endangered Vascular Plants of California* (CNPS v8-02, June 12, 2014). Sensitive species known by LSA biologists to occur in the general area were also considered.

Biological Survey. A general biological survey of the Project site was conducted by LSA biologist Erin Martinelli on April 12, 2013. The survey consisted of walking the entire site and recording the landscape conditions and the floral and faunal species observed on the site. In addition, a preconstruction nesting bird and bat roost survey was conducted by LSA biologists Erin Martinelli and Jill Carpenter on August 18, 2014. The survey was conducted to identify any active bird nesting

or roosting locations, or any bat roosts, within the Project area that could be impacted by demolition of the former Belmont Pool.

4.3.2 Existing Environmental Setting

The Project site is relatively flat, and there are no substantial hillsides or unstable slopes immediately adjacent to the site boundary. There is no native habitat on the Project site, and vegetation consists of a few mature ornamental trees, a manicured lawn, and frequently maintained ornamental landscaping. The CNPS list of rare and endangered vascular plants generated during the literature review was evaluated. Due to a complete lack of suitable habitat for special-status native plant species at the Project site, the potential for their occurrence at the site is not considered further in this analysis.

The entire Project site is a previously developed property in a heavily urbanized coastal area. The land uses surrounding the Project site consist of mixed uses, which include single-family and multifamily residential with some retail/restaurant uses, and also includes the pier, public beaches, and associated parking. Therefore, the Project site and the surrounding areas are not subject to any Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP). The Project site is located within the Coastal Zone. There is no native habitat present on site or adjacent for any special-status species. No critical habitat has been identified in the Project study area.

A number of bird species typically associated with urban park areas consisting of ornamental landscaping were observed within the Project site. Species diversity was found to be relatively low, likely due to the isolation from adjoining, terrestrial natural areas for many years. Because of the isolation of this site amidst urban development, the Project site does not function as a wildlife movement corridor. However, park areas with ornamental trees can provide foraging and nesting habitat for wildlife, particularly wildlife adapted to urban environments. Those species present on site are either able to fly in, are able to navigate on the ground through long stretches of residential development, or have been able to sustain a small population in spite of the isolation.

Species Observed. Species observed at the proposed Project site during the May 3, 2013, general biological survey include black-crowned night-heron (*Nycticorax nycticorax*), western gull (*Larus occidentalis*), rock pigeon (*Columba livia*),¹ mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), Allen's hummingbird (*Selasphorus sasin*), red-crowned parrot (*Amazona viridigenalis*),¹ black phoebe (*Sayornis nigricans*), American crow (*Corvus brachyrhynchos*), bushtit (*Psaltriparus minimus*), European starling (*Sturnus vulgaris*),¹ orange-crowned warbler (*Oreothlypis celata*),¹ yellow-rumped warbler (*Setophaga coronata*), chipping sparrow (*Spizella passerina*), house finch (*Haemorhous mexicanus*), and house sparrow (*Passer domesticus*).¹ None of these species is federally or State-listed as Threatened or Endangered.

During the August 18, 2014, preconstruction nesting bird and bat roost surveys, species observed include black-crowned night-heron, western gull, rock pigeon,¹ mourning dove, Allen's hummingbird, red-crowned parrot,¹ and American crow.

¹ Species not native to the survey area, *Belmont Plaza Project Biological Survey Memorandum* (LSA, May 2013).

The special-interest animal species with the potential to occur on the Project site are described in Table 4.3.A. Two special-status bird species—Allen’s hummingbird and Cooper’s hawk (*Accipiter cooperii*)—either were observed on the Project site or have a moderate probability of occurring on the Project site based on the results of the records search.

- **Cooper’s Hawk:** Although not observed during the site visit, Cooper’s hawks are well adjusted to urban habitats in the Los Angeles Basin. This species has a moderate potential of nesting in the Project area and is likely to occur outside the nesting season. The status of this species is California Special Animal.
- **Allen’s Hummingbird:** Allen’s hummingbirds were observed foraging during the LSA biologist site visit. This species has a status as a United States Fish and Wildlife Service (USFWS) Bird of Conservation Concern and as a California Special Animal.

Wetlands and Waters. The Project site is located above the elevation of tidal influence from the Pacific Ocean. As part of background research collection for a different, unrelated project, LSA obtained the mean high tide level and mean tidal elevation data from the National Oceanic and Atmospheric Administration (NOAA) for the region. The average tide and average high tide data show that the Project is out of the tidal range.¹ No other wetlands and nonwetland waters of the United States are present.

4.3.3 Regulatory Setting

The following State and federal laws and regulations related to biological resources and the agencies responsible for implementing those laws and regulations are applicable to the proposed Project.

Federal Regulations and Policies.

United States Army Corps of Engineers.

Section 404 of the Clean Water Act. The United States Army Corps of Engineers (Corps) regulates discharges of dredged or fill material into waters of the United States (U.S.). The term “waters of the U.S.” is defined at 33 Code of Federal Regulations (CFR) Part 328 and includes (1) *All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce...*, (2) *all interstate waters and wetlands*, (3) *all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce*, (4) *all impoundments of waters mentioned above*, (5) *all tributaries to waters mentioned above*, (6) *the territorial seas*, and (7) *all wetlands adjacent to waters mentioned above*.

¹ National Oceanic and Atmospheric Administration (NOAA). 2004. Tides and Currents Datums-Station Selection. Long Beach, Terminal Island, California. Website: <http://tidesandcurrents.noaa.gov/datums.html?id=9410680> (accessed January 20, 2015).

Table 4.3.A: Special-Status Animal Species Potentially Occurring or Known to Occur in the Biological Study Area

Common Name	Scientific Name	Status: Federal/State	General Habitat Description	Potential for Occurrence at the Project Site	Rationale
INVERTEBRATES					
Western tidal-flat tiger beetle	<i>Cicindela gabbii</i>	--/CSA	Inhabits estuaries and mudflats along the coast of southern California. Generally found on dark-colored mud in the lower zone; occasionally found on dry saline flats of estuaries.	Absent	Suitable habitat does not exist on the Project site.
Sandy beach tiger beetle	<i>Cicindela hirticollis gravida</i>	--/CSA	Inhabits areas adjacent to non-brackish water along the coast of California from San Francisco bay to northern Mexico. Clean, dry, light-colored sand in the upper zone. Subterranean larvae prefer moist sand not affected by wave action.	Absent	Suitable habitat does not exist on the Project site.
Western beach tiger beetle	<i>Cicindela latesignata latesignata</i>	--/CSA	Mudflats and beaches in coastal southern California.	Absent	Suitable habitat does not exist on the Project site.
Senile tiger beetle	<i>Cicindela senilis frosti</i>	--/CSA	Inhabits marine shoreline, from central California coast south to salt marshes of San Diego, also found at Lake Elsinore. Inhabits dark-colored mud in the lower zone and dried salt pans in the upper zone.	Absent	Suitable habitat does not exist on the Project site.
Monarch butterfly	<i>Danaus plexippus</i>	--/CSA (overwintering concentration)	Winter roost sites extend along the coast from northern Mendocino County to Baja California. Roosts located in wind-protected tree groves (eucalyptus, pine, and cypress) with nectar and water sources nearby.	Low potential for roosting concentration	Suitable winter roost trees are not present on the Project site, and roosting has not been reported in the area.
Palos Verdes blue butterfly	<i>Glaucopsyche lygdamus palosverdesensis</i>	FE/CSA	Requires suitable larval host plants for oviposition and larval development. Host plants occur within disturbed patches in CSS communities throughout the Palos Verdes Peninsula.	Absent	Suitable habitat does not exist on the Project site.
Wandering (=saltmarsh) skipper	<i>Panoquina errans</i>	--/CSA	Southern California coastal salt marshes. Requires moist saltgrass for larval development.	Absent	Suitable habitat does not exist on the Project site.

Table 4.3.A: Special-Status Animal Species Potentially Occurring or Known to Occur in the Biological Study Area

Common Name	Scientific Name	Status: Federal/State	General Habitat Description	Potential for Occurrence at the Project Site	Rationale
Riverside fairy shrimp	<i>Streptocephalus woottoni</i>	FE/CSA	Warm-water vernal pools (i.e., large, deep pools that retain water into the warm season) with low-to-moderate dissolved solids, in annual grassland areas interspersed through chaparral or CSS vegetation. Suitable habitat includes some artificially created or enhanced pools, such as some stock ponds, that have vernal pool-like hydrology and vegetation. Known from areas within about 50 mi of the coast from Ventura County south to San Diego County and Baja California.	Absent	Suitable habitat does not exist on the Project site.
Dorothy's El Segundo dune weevil	<i>Trigonoscuta dorothea dorothea</i>	--/CSA	Endemic to coastal sand dunes in Los Angeles County.	Absent	Suitable habitat does not exist on the Project site.
Mimic tryonia (=California brackish water snail)	<i>Tryonia imitator</i>	--/CSA	Inhabits coastal lagoons, estuaries, and salt marshes, from Sonoma County south to San Diego County.	Absent	Suitable habitat does not exist on the Project site.
FISH					
Mohave tui chub	<i>Siphateles bicolor mohavensis</i>	FE/SE	Endemic to the Mojave River basin, adapted to alkaline, mineralized waters. Needs deep pools, ponds, or slough-like areas. Needs vegetation for spawning. Known from San Bernardino County.	Absent	Suitable habitat does not exist on the Project site.
AMPHIBIANS					
Western spadefoot	<i>Spea hammondi</i>	--/CSC	Grasslands and occasionally hardwood woodlands; largely terrestrial but requires rain pools or other ponded water persisting at least 3 weeks for breeding; burrows in loose soils during dry season. Occurs in the Central Valley and adjacent foothills, the non-desert areas of southern California, and Baja California.	Absent	Suitable habitat does not exist on the Project site.

Table 4.3.A: Special-Status Animal Species Potentially Occurring or Known to Occur in the Biological Study Area

Common Name	Scientific Name	Status: Federal/State	General Habitat Description	Potential for Occurrence at the Project Site	Rationale
REPTILES					
Silvery legless lizard	<i>Anniella pulchra pulchra</i>	--/CSC	Fossorial. Inhabits loose soil and humus from central California to northern Baja California.	Absent	Suitable habitat does not exist on the Project site.
Coastal western whiptail	<i>Aspidoscelis tigris stejnegeri</i>	--/CSA	Wide variety of habitats, including CSS, sparse grassland, riparian woodland, and coastal and inland valleys and foothills, from Ventura County to Baja California.	Absent	Suitable habitat does not exist on the Project site.
Green turtle	<i>Chelonia mydas</i>	FT/--	Generally found in relatively shallow waters (except when migrating) inside reefs, bays, and inlets. Attracted to lagoons and shoals with an abundance of marine grass and algae. Open beaches with a sloping platform and minimal disturbance are required for nesting. In the eastern North Pacific, species has been sighted from Baja California to southern Alaska, but most commonly occur from San Diego south.	Absent	Suitable habitat does not exist on the Project site. Not known to utilize or nest on beach area adjacent to the Project site.
Western pond turtle	<i>Emys marmorata</i>	--/CSC	Inhabits permanent or nearly permanent water below 1,830 m (6,000 ft) from central California, west of the Sierra-Cascade crest south to northwestern Baja California. Requires basking sites such as partially submerged logs, rocks, or open mud banks.	Absent	Suitable habitat does not exist on the Project site.
Coast horned lizard	<i>Phrynosoma blainvillii</i>	--/CSC	Primarily in sandy soil in open areas, especially washes and floodplains, in many plant communities. Requires open areas for sunning, bushes for cover, patches of loose soil for burial, and an abundant supply of ants or other insects. Occurs west of the deserts from northern Baja California north to Shasta County below 8,000 ft elevation.	Absent	Suitable habitat does not exist on the Project site.

Table 4.3.A: Special-Status Animal Species Potentially Occurring or Known to Occur in the Biological Study Area

Common Name	Scientific Name	Status: Federal/State	General Habitat Description	Potential for Occurrence at the Project Site	Rationale
BIRDS					
Cooper's hawk	<i>Accipiter cooperii</i>	--/CSA (nesting)	Primarily forests and woodlands throughout North America. Nests in trees.	Moderate	This species is now a rather common and widespread breeder in urban areas throughout the Los Angeles Basin. Foraging and potential nesting habitat is present on the Project site.
Tricolored blackbird	<i>Agelaius tricolor</i>	BCC/CSC (breeding)	Open country in western Oregon, California, and northwestern Baja California. Breeds near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, and tall herbs. Forages in grassland and cropland habitats. Seeks cover for roosting in emergent wetland vegetation, especially cattails and tules, and also in trees and shrubs.	Absent	Suitable habitat does not exist on the Project site.
Burrowing owl	<i>Athene cunicularia</i>	BCC/CSC (burrow sites)	Open country in much of North and South America.	Absent	Suitable habitat does not exist on the Project site.
Ferruginous hawk	<i>Buteo regalis</i>	BCC/CSA (wintering)	Forages in open fields, grasslands and agricultural areas, sagebrush flats, desert scrub, fringes of pinion-juniper habitats, and other open country in western North America. Requires large, open tracts of grasslands, sparse shrub, or desert habitats.	Low	Suitable habitat does not exist on the Project site.
Western snowy plover	<i>Charadrius alexandrinus nivosus</i>	FT/CSC (coastal population)	Sandy coastal beaches, lakes, alkaline playas. Scattered locations along coastal California and Channel Islands, inland at Salton Sea, and at various alkaline lakes.	Low	Suitable habitat does not exist on the Project site. Sandy beach habitat occurs adjacent to the Project site, but occurrence of this species is unlikely due to heavy recreational use of the beach.

Table 4.3.A: Special-Status Animal Species Potentially Occurring or Known to Occur in the Biological Study Area

Common Name	Scientific Name	Status: Federal/State	General Habitat Description	Potential for Occurrence at the Project Site	Rationale
Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	FPT/SE	Breeds and nests in extensive stands of dense cottonwood/willow riparian forest along broad, lower flood bottoms of larger river systems at scattered locales in western North America; winters in South America.	Absent	Suitable habitat does not exist on the Project site.
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	FE/SE	Rare and local breeder in extensive riparian areas of dense willows or (rarely) tamarisk, usually with standing water, in the southwestern U.S. and (formerly?) northwestern Mexico. Winters in Central and South America.	Absent	Suitable habitat does not exist on the Project site.
Merlin	<i>Falco columbarius</i>	--/CSA	Open fields; breeds in the Holarctic Region and winters south to the tropics. Uncommon fall migrant and winter visitor to southwestern California.	Low	This species has increased greatly as a wintering species in the Los Angeles Basin and regularly forages along the Los Angeles River.
American peregrine falcon	<i>Falco peregrinus anatum</i>	FDE, BCC/SDE, CFP	Widespread but scarce and local throughout North America. Nests on buildings and bridges in the Los Angeles Basin.	Low	Nests in the Port of Los Angeles and may forage in the Project area.
Loggerhead shrike	<i>Lanius ludovicianus</i>	BCC/CSC (nesting)	Found in open country in much of North America but declining in many areas, including southwestern California.	Low	Suitable habitat does not exist on the Project site. Nested along the lower Los Angeles River in Long Beach and Cudahy as recently as 2002 and 2004, but now probably extirpated as a nesting species. Has also greatly declined as a wintering species in the area.
Belding's savannah sparrow	<i>Passerculus sandwichensis beldingi</i>	--/SE	Resident in salt marshes, with rare exception (e.g., Islas Todos Santos, Baja California), of Pacific Coast from Santa Barbara County to Baja California.	Absent	Suitable habitat does not exist on the Project site.

Table 4.3.A: Special-Status Animal Species Potentially Occurring or Known to Occur in the Biological Study Area

Common Name	Scientific Name	Status: Federal/State	General Habitat Description	Potential for Occurrence at the Project Site	Rationale
California brown pelican	<i>Pelecanus occidentalis californicus</i>	--/CFP (Nesting colony & communal roosts)	Colonial nester on coastal islands just outside the surf line. Nests on coastal islands of small to moderate size, which afford immunity from attack by ground-dwelling predators.	Low	Suitable nesting habitat does not exist on the Project site. Individuals may feed, fly over, and rest along the adjacent near-shore waters or beach areas.
Coastal California gnatcatcher	<i>Poliophtila californica californica</i>	FT/CSC	Inhabits CSS in low-lying foothills and valleys in cismontane southwestern California and Baja California.	Absent	Suitable habitat does not exist on the Project site.
Light-footed clapper rail	<i>Rallus longirostris levipes</i>	FE/SE	Found in salt marshes traversed by tidal sloughs, where cordgrass and pickleweed are the dominant vegetation. Requires dense growth of either pickleweed or cordgrass for nesting or escape cover; feeds on mollusks and crustaceans.	Absent	Suitable habitat does not exist on the Project site.
Bank swallow	<i>Riparia riparia</i>	--/ST (nesting)	Nesting habitat is vertical banks of fine textured soils, most commonly along streams and rivers. In Southern California, fairly common spring and fall transient in interior; very uncommon spring transient and rare fall transient along coast. Casual in winter.	Absent	Suitable habitat does not exist on the Project site.
Black skimmer	<i>Rynchops niger</i>	BCC/CSC	Casual inland; nests and breeds in coastal beach, sandbar, shell bank, island, and salt marsh and locally on gravel rooftops. Associates with terns, gulls, plovers.	Low	May occur on adjacent sandy beach area, but suitable habitat does not exist on the Project site.
Allen's hummingbird	<i>Selasphorus sasin</i>	BCC/CSA (nesting)	Chaparral, open oak woodland riparian woodland, and residential areas on the breeding grounds from southwestern Oregon to southwestern California; primarily montane woodland on the wintering grounds in central Mexico.	Present	Fairly common resident in the Project area and observed during site visit. It is an abundant, adaptable, and increasing species throughout urban southern California and is expected anywhere there is a mix of exotic flowering trees and shrubs.

Table 4.3.A: Special-Status Animal Species Potentially Occurring or Known to Occur in the Biological Study Area

Common Name	Scientific Name	Status: Federal/State	General Habitat Description	Potential for Occurrence at the Project Site	Rationale
California least tern	<i>Sterna antillarum browni</i>	FE/SE	Nests along the coast from San Francisco Bay south to northern Baja California. Forages in shallow water. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas.	Low	Suitable habitat for nesting does not exist on the Project site.
MAMMALS					
Pallid bat	<i>Antrozous pallidus</i>	--/CSC	Varied habitats in western North America, including grasslands, shrublands, woodlands, deserts, and forest. Primarily day roosts in bridges, hollows, or crevices of trees, or buildings. Occasionally roosts in mines, caves, and cliff/rock crevices. Night roosts may be more open sites, such as porches, open buildings, and bridges.	Low	Known to roost in crevices of buildings. Foraging habitat is present along the Los Angeles and San Gabriel Rivers. Recorded throughout the Los Angeles area, including Long Beach.
Western mastiff bat	<i>Eumops perotis californicus</i>	--/CSC	Ranged historically throughout much of the southwestern U.S. and northwestern Mexico. In California, most records are from rocky areas at low elevations. Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral; roosts in crevices in vertical cliff faces, high buildings, trees, and tunnels throughout southwestern California. May roost in tall bridges.	Low	May roost in crevices of buildings. There are numerous historic roosting areas in the Los Angeles Basin. In addition, foraging habitat is present along the Los Angeles and San Gabriel Rivers, and this species is known to forage over large distances from roost sites.
Silver-haired bat	<i>Lasionycteris noctivagans</i>	--/CSA	Primarily associated with north temperate zone conifer and mixed conifer/hardwood forests across southern Canada and most of the U.S. May be found in winter and during seasonal migration in lower, xeric habitats. Roosts mainly in hollows or crevices of trees, but may also roost in rock crevices, mines, or caves. May forage a considerable distance from roosting area.	Low	Rarely uses buildings for roosting but may roost in trees in the Project area and forage along the Los Angeles or San Gabriel Rivers. Recorded from Bellflower and Long Beach.

Table 4.3.A: Special-Status Animal Species Potentially Occurring or Known to Occur in the Biological Study Area

Common Name	Scientific Name	Status: Federal/State	General Habitat Description	Potential for Occurrence at the Project Site	Rationale
Western red bat	<i>Lasiurus blossevillii</i>	--/CSC	Ranges from southwestern Canada through the western U.S. and Middle America to South America. Forages over a wide range of habitats but often associated with intact riparian habitat, particularly with willows, cottonwoods, and sycamores. Typically solitary, roosting in the foliage of trees or shrubs. Day roosts are commonly in habitats near streams or open fields, in orchards, and sometimes in urban areas.	Low	May roost in large-leaved trees along segments of the lower Los Angeles and San Gabriel Rivers and adjacent residential areas. Foraging habitat is present along the Los Angeles and San Gabriel Rivers.
Hoary bat	<i>Lasiurus cinereus</i>	--/CSA	Widespread in North America and Hawaii. Forages over a wide range of habitats but prefers open habitats with access to water and trees for roosting. Typically solitary, roosting in the foliage of shrubs or coniferous and deciduous trees. Roosts are usually near the edge of a clearing.	Low	May roost in trees along segments of the lower Los Angeles and San Gabriel Rivers or in adjacent residential areas. Foraging habitat is present along the rivers. Recorded throughout the Los Angeles area.
Western yellow bat	<i>Lasiurus xanthinus</i>	--/CSC	Varied habitats from the southwestern U.S. to southern Mexico; often associated with palms and desert riparian habitats. In southern California, occurs in palm oases and in residential areas with untrimmed palm trees. Roosts primarily in trees, especially the dead fronds of palm trees, although it has also been documented to roost under the leaves of deciduous trees such as cottonwoods.	Low	May roost in palms along segments of the lower Los Angeles and San Gabriel Rivers and adjacent residential areas. Foraging habitat is present along the Los Angeles and San Gabriel Rivers. Recorded from Garden Grove.
South coast marsh vole	<i>Microtus californicus stephensi</i>	--/CSC	Tidal marshes in Los Angeles, Orange, and southern Ventura Counties.	Absent	Suitable habitat does not exist on the Project site.
Western small-footed myotis	<i>Myotis ciliolabrum</i>	--/CSA	Found across much of North America, primarily in relatively arid wooded and brushy uplands near water. Individuals are known to roost singly or in small groups in cliff and rock crevices, buildings, concrete overpasses, caves, and mines.	Low	Known to occasionally roost in building crevices. Foraging habitat is present along the Los Angeles and San Gabriel Rivers.

Table 4.3.A: Special-Status Animal Species Potentially Occurring or Known to Occur in the Biological Study Area

Common Name	Scientific Name	Status: Federal/State	General Habitat Description	Potential for Occurrence at the Project Site	Rationale
Long-eared myotis	<i>Myotis evotis</i>	--/CSA	Found throughout much of North America in semiarid shrublands, chaparral, and agricultural areas but usually associated with coniferous forests. Roosts under exfoliating tree bark and in hollow trees, caves, mines, and crevices in cliffs/rocks. Sometimes roosts in buildings and bridges.	Low	Known to occasionally roost in buildings. Foraging habitat is present along the Los Angeles and San Gabriel Rivers.
Yuma myotis	<i>Myotis yumanensis</i>	--/CSA	Occurs in a variety of habitats in western North America, including riparian habitats, arid scrublands and deserts, and forests. Optimal habitats are open forests and woodlands with sources of water over which to feed. Roosts in buildings, mines, caves, or crevices and under bridges. May occasionally roost in swallow nests.	Low	Known to frequently roost in buildings. Observed roosting and foraging along the lower Los Angeles River from SR-91 to Willow Street. Foraging habitat is present along the Los Angeles and San Gabriel Rivers.
San Diego desert woodrat	<i>Neotoma lepida intermedia</i>	--CSC	Found in desert scrub and CSS habitat, especially in association with cactus patches. Builds stick nests around cacti, or on rocky crevices. Occurs along the Pacific slope from San Luis Obispo County to northwest Baja California.	Absent	Suitable habitat does not exist on the Project site.
Pocketed free-tailed bat	<i>Nyctinomops femorosaccus</i>	--/CSC	Varied habitats, but usually associated with high cliffs or rocky areas. Spotty distribution, ranging from southern California and southwestern Arizona through central Mexico. Roosts primarily in cliffs/rock crevices; may use buildings for roosting. Rarely roosts in bridges.	Low	Although roosting is unlikely in the Project area, may roost in buildings. Foraging habitat is present along the Los Angeles and San Gabriel Rivers, and this species is known to forage over large distances from roost sites. Recorded from Harbor City and Inglewood.

Table 4.3.A: Special-Status Animal Species Potentially Occurring or Known to Occur in the Biological Study Area

Common Name	Scientific Name	Status: Federal/State	General Habitat Description	Potential for Occurrence at the Project Site	Rationale
Big free-tailed bat	<i>Nyctinomops macrotis</i>	--/CSC	Mainly inhabits rugged, rocky habitats in arid southwestern North America. Feeds principally on large moths. Roosts primarily in cliffs/rock crevices and rarely in buildings, caves, and tree cavities. Not known to use bridges for roosting.	Low	Although roosting is unlikely in the Project area, foraging habitat is present along the Los Angeles and San Gabriel Rivers, and this species is known to forage over large distances from roost sites. Recorded from Long Beach and Los Angeles.
Pacific pocket mouse	<i>Perognathus longimembris pacificus</i>	FE/CSC	Historically occupied open habitats on sandy soils along the coast from Los Angeles to the Mexican border. Now known from only four sites in Orange and San Diego Counties.	Absent	Suitable habitat does not exist on the Project site.
Southern California saltmarsh shrew	<i>Sorex ornatus salicornicus</i>	--/CSC	Coastal marshes with dense vegetation and woody debris for cover. Known only from Los Angeles, Ventura, and Orange Counties.	Absent	Suitable habitat does not exist on the Project site.
American badger	<i>Taxidea taxus</i>	--/CSC	Primary habitat requirements seem to be sufficient food and friable soils in relatively open uncultivated ground in grasslands, woodlands, and desert. Widely distributed in North America.	Absent	Suitable habitat does not exist on the Project site.

Source: *Biological Assessment Report* (April 2013).

Status: Federally-listed as Endangered (FE), Federally-listed as Threatened (FT), State-listed as Endangered (SE), State-listed as Threatened (ST), Federally Proposed Threatened (FPT), Federally Delisted as Endangered (FDE), United States Fish and Wildlife Service Birds of Conservation Concern (BCC), California Delisted as Endangered (SDE), California Fully Protected Species (CFP), California Species of Special Concern (CSC), and California Special Animal (CSA).

CSS = coastal sage scrub

ft = feet/foot

LSA = LSA Associates, Inc.

m = meters

mi = miles

SR-91 = State Route 91

U.S. = United States

Wetlands are defined at 33 CFR 328.3(b) as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions.”

Waters found to be isolated and not subject to Clean Water Act (CWA) regulation are often still regulated by the Regional Water Quality Control Board (RWQCB) under the State Porter-Cologne Water Quality Control Act (Porter-Cologne Act), as discussed below. No Section 404 Permit would be required for the proposed Project.

Regional Water Quality Control Board (RWQCB). Waters subject to the provisions of Section 404 of the CWA also require Water Quality Certification from the RWQCB pursuant to Section 401 of the CWA. Waters that do not fall under the jurisdiction of the RWQCB pursuant to Section 401 of the CWA may require authorization through application for waste discharge requirements (WDRs) or through waiver of WDRs, pursuant to the Porter-Cologne Act (California Water Code, Division 7). No Section 401 Permit would be required for the proposed Project. Stormwater discharge is subject to the requirements of National Pollutant Elimination Discharge System (NPDES) permitting.

State Regulations and Policies.

United States Fish and Wildlife Service. The Federal Endangered Species Act (FESA) of 1973 sets forth a two-tiered classification scheme based on the biological health of a species. Endangered species are those in danger of becoming extinct throughout all or a significant portion of their range. Threatened species are those likely to become endangered in the foreseeable future; Special Rules under Section 4(d) can be made to address threatened species. Ultimately, the FESA attempts to bring populations of listed species to healthy levels so that they no longer need special protection.

If a federal action exists and the Project may impact listed species or designated critical habitat, consultation with the United States Fish and Wildlife Service (USFWS) is required through Section 7 of the FESA. By law, Section 7 consultation is a cooperative effort involving affected parties engaged in analyzing the effects posed by proposed actions on listed species or critical habitats. The FESA prohibits the “take” of listed species by anyone unless authorized by the USFWS. Take is defined as “conduct which attempts or results in the killing, harming, or harassing of a listed species.” Harm is defined as “significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering.” Harassment is defined as an “intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns, including breeding, feeding, or sheltering.” Therefore, in order to comply with the FESA, any proposed Project should be assessed prior to construction to determine whether that project will impact listed species or, in the case of a federal action on the Project, designated critical habitats. There are no designated Critical Habitats in the proposed Project site.

California Department of Fish and Wildlife. The CDFW, through Sections 1600–1603 of the California Fish and Game Code, is empowered to regulate all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. CDFW defines a “stream” (including creeks and rivers) as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation.” The CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by CDFW. While seasonal ponds are within the CDFW definition of wetlands, if they are not associated with a river, stream, or lake, they are not subject to CDFW jurisdiction under Section 1602 of the California Fish and Game Code. No streams or riparian habitat subject to the jurisdiction of the CDFW is located on the Project site, and no Streambed Alteration Agreement (SAA) is required for the proposed Project.

California Endangered Species Act (CESA). The California Endangered Species Act (CESA; California Fish and Game Code Sections 2050–2098) was signed into law in 1984. It was intended to parallel the federal law. The CESA prohibits the unauthorized “take” of species listed as threatened or endangered under its provisions. However, a significant difference exists in the CESA definition of “take,” which is limited to actually or attempting to “hunt, pursue, capture, or kill.” There are no State-listed Threatened or Endangered Species occupying the Project site, and none are expected to occur.

California Coastal Commission. The California Coastal Commission (Coastal Commission), through provisions of the California Coastal Act (Coastal Act), is empowered to issue a Coastal Development Permit (CDP) for many projects located within the Coastal Zone. In areas where a local entity has a certified Local Coastal Program (LCP), such as the City of Long Beach, the primary responsibility for issuing CDPs is transferred from the Coastal Commission to the local government for all nonshore/nonwater projects in the Coastal Zone. The local agency can issue a CDP only if it is consistent with the LCP. The Coastal Commission, however, has appeal authority for portions of LCPs and retains permanent coastal permit authority for areas without a certified LCP, as well as over certain public trust lands (areas on the water, immediate shoreline, tidelands, submerged lands, and coastal-oriented bodies of water). The proposed Project will require issuance of a CDP from the Coastal Commission because the proposed Project area includes tidal lands and a large portion of the site is within the Coastal Commissions’ original jurisdiction.

The Coastal Commission regulates the diking, filling, and dredging of wetlands within the Coastal Zone. The Coastal Act Section 30121 defines wetlands as lands “within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens.” The facility improvements associated with the proposed Project are regulated and reviewed by the Coastal Commission.

Species Protection under Regulatory and Local Policies.

Nesting Birds. The federal Migratory Bird Treaty Act (MBTA) regulations and portions of the California Fish and Game Code prohibit the “take” of nearly all native bird species and their nests. While these laws and regulations were originally intended to control the intentional take of birds and/or their eggs and nests by collectors, falconers, etc., they can nevertheless be applied to unintentional take (e.g., destroying an active nest by cutting down a tree). It is sometimes possible to obtain a permit for relocating or removing a nest.

Local Tree Protection. The City of Long Beach Municipal Code (Ordinance C-7642) requires that a permit be obtained from the Director of Public Works prior to removal of trees from City-owned property. The City also requires that the trees be identified, mapped, and measured prior to removal. The City’s Tree Maintenance Policy requires a 1:1 replacement ratio and payment of a fee that is equivalent to a City-approved 15-gallon tree.

Tree Trimming Policy. The City’s Department of Parks, Recreation, and Marine has an adopted Tidelands Area Tree Trimming policy that provides guidelines and procedures for trimming trees within the Tidelands area. The guidelines contained in the policy restrict tree trimming within 300 feet of any tree containing an active nest or nesting activity during the period from January 15 to September 1.¹

4.3.4 Impact Significance Criteria

The thresholds for impacts on biological resources used in this analysis are consistent with the Environmental Checklist in Appendix G of the *State CEQA Guidelines*. The proposed Project may be deemed to have a significant impact with respect to biological resources if it results in a:

- Threshold 4.3.1:** Substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- Threshold 4.3.2:** Substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or USFWS;
- Threshold 4.3.3:** Substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

¹ City of Long Beach Department of Parks, Recreation, and Marine. Policies and Procedures Subject: Tree Trimming. May 8, 1987.

- Threshold 4.3.4:** Substantial interference with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Threshold 4.3.5:** Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance; or
- Threshold 4.3.6:** Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Communities Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan.

The Initial Study (IS; Appendix A) substantiates the determination that the proposed Project would result in less than significant impacts associated with Thresholds 4.3.2 (adverse effect on riparian or other sensitive natural community) and Threshold 4.3.3 (adverse effect on wetlands). Additionally, the IS determined the proposed Project would not result in impacts associated with Threshold 4.3.6 (conflict with adopted HCPs or NCCPs). No new information identifying a change in the level of impacts were discovered during the scoping process. As a result, these thresholds are not considered further in the analyses of the potential impacts of the proposed Project on biological resources.

CEQA Baseline. At the time the NOP was published (April 2014), the Project site contained both the Belmont Pool facilities and the outdoor temporary pool (opened in December 2013 to provide swimming facilities while the permanent facility was under construction). Although the site contained the former Belmont Pool building at the time of the NOP, the facility was demolished in February 2015 to alleviate an imminent public safety threat due to the seismically unsafe condition of the building.

The inclusion of the former building in the assessment of biological impacts is appropriate because the structure and surrounding trees were surveyed prior to the removal of the building in order to identify any nesting/roosting sites. In addition, no vegetation currently exists on the site of the former facility. A temporary backfilled blanket of sand was placed over the site of the demolished building and does not contain any significant biological resources in its current condition. Substantial evidence supports the determination that inclusion of the former pool facility as the baseline for biological impacts is appropriate because it is based on recent historical use.

4.3.5 Project Impacts

- Threshold 4.3.1:** Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

Less than Significant Impact. No sensitive natural community or special-status plant species were identified on the Project site, and no designated critical habitat is located in the Project Site. Although the on-site vegetation is nonnative, Allen's hummingbirds were observed foraging on the Project site. However, bird species known to be utilizing the site, including Allen's hummingbird, would be able to relocate to other hunting and foraging habitats once the Project is implemented. These species are

adapted to hunting and foraging in an urban environment, and the loss of the foraging habitat on site would not be considered significant.

The loss of disturbed, nonnative habitat, and the associated reduction of locally common wildlife populations, is not considered significant impacts. The removal of on-site vegetation is not expected to have a significant adverse effect on candidate, sensitive, or special-status species, as defined by the CDFW or the USFWS. Therefore, any impacts to sensitive or special-status species would be less than significant, and no mitigation is required.

Threshold 4.3.4: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less than Significant Impact with Mitigation Incorporated. The proposed Project site is not currently a highly functioning movement corridor for wildlife species and does not contain any significant high-value nursery habitat sites. The proposed Project site is developed and located in an urban area subject to frequent intense human activity under current conditions. Because of the isolation of this site amidst urban development, the proposed Project site does not function as a wildlife movement corridor.

However, because of the presence of several mature ornamental trees, implementation of the proposed Project may interfere with native resident or migratory bird species. The MBTA and Fish and Game Code 3503 protect most native bird species from destruction or harm. This protection extends to individuals as well as any part, nest, or eggs of any bird listed as migratory. Most native North American bird species are on the MBTA list, which applies to the Project site given the number and likelihood of nesting migratory birds in the trees located on the Project site.

A total of 30 trees would be removed or relocated. Twenty-four canopy trees would be removed, along with five palms. Four to five of the canopy trees are being considered for relocation, to accommodate the expansion of pool facilities. In addition, noise and activities during construction could cause the potential abandonment of nests by migratory birds. The *Biological Survey Memorandum* and *Preconstruction Nesting Bird and Bat Roost Surveys Memorandum* (Appendix C) prepared for the Project identified ten nesting/roosting sites in total (nine nesting/roosting locations were identified in the initial *Biological Survey Memorandum*, and one new nesting/roosting location was identified in the *Preconstruction Nesting Bird and Bat Roost Surveys Memorandum*). The preconstruction nesting bird and bat roost surveys conducted on August 18, 2014, found no active bird nests but did identify evidence of recent roosting in two locations and one roosting black-crowned night heron.

Construction activities associated with the proposed Project may result in some temporary disruptions to the roosting activities of the bird species utilizing these locations. In addition, construction of the pool facilities and renovations to the passive park areas have the potential to cause a direct loss of nesting trees or the abandonment of nests in those trees. However, the bird species present in the Project area are currently coexisting with pool and park users and are accustomed to human intrusion and noise and are anticipated to be able to reestablish to the relocated trees and adapt to the additional

trees installed as a part of the proposed Project. Therefore, long-term operation of the proposed Project is anticipated to have less than significant impacts on nesting and/or roosting birds.

During the preconstruction nesting bird and bat roost surveys conducted on August 18, 2014, no bats were observed emerging from the former Belmont Pool building complex at any time during the emergence survey; no bats were observed flying or foraging in the vicinity; and no bats were detected with acoustic equipment. Therefore, based upon the daytime building inspection and the nighttime emergence survey, there was no evidence that bats were roosting on or around the Project site. Therefore, no impacts to day-roosting bats or bat colonies on the Project site or in the vicinity of the Project site are expected to occur.

Mitigation Measure 4.3.1 (compliance with the MBTA) would restrict the removal of trees and vegetation during the nesting season and require surveys, as necessary, prior to construction to ensure that potential construction impacts to migratory birds are reduced to a less than significant level. Peak nesting months are typically March through June, although nesting can occur as early as mid-January and as late as September 1. Therefore, it is recommended that any necessary tree removal be completed during the autumn and winter months (i.e., September 2 through January 14). Implementation of Mitigation Measure 4.3.1 would be required to ensure that potential impacts to migratory birds are reduced to a less than significant level.

Threshold 4.3.5: Would the project conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?

Less than Significant Impact with Mitigation Incorporated. The proposed Project would be constructed within an existing developed area that contains ornamental landscaping and nonnative vegetation. The proposed Project would comply with the Tidelands Area Tree Trimming policy by restricting tree trimming within 300 feet of any tree containing an active nest or nesting activity during the period from January 15 through September 1.

The construction of the pool facilities as currently planned would result in removal or relocation of 30 trees. Of these 30 trees, 24 canopy trees and 5 palms would be removed. A total of 4 to 5 canopy trees are being slated for relocation, to accommodate the expansion of pool facilities. In accordance with the City's Municipal Code, Chapter 14.28, a ministerial permit from the Director of Public Works would be required before the removal of any trees on City-owned property. A tree removal permit would be obtained prior to any grading or construction activities. The City's Tree Maintenance Policy requires a 1:1 replacement ratio and payment of a fee that is equivalent to a City-approved 15-gallon tree. Mitigation Measure 4.3.2 addresses this ordinance and outlines the requirement for the replacement of trees. Therefore, with implementation of Mitigation Measure 4.3.2, impacts related to the City's tree protection ordinance would be reduced to a less than significant level.

4.3.6 Cumulative Impacts

Less than Significant Impact with Mitigation Incorporated. The cumulative study area for biological resources would be the immediate Project site and the Greater Belmont Shore area. The proposed Project has a limited potential to result in a cumulative impact to nesting migratory bird species or biological resources. However, Mitigation Measures 4.3.1 and 4.3.2, requiring avoidance

of construction during nesting season and replacement of removed trees at a 1:1 ratio, would reduce potential impacts to migratory bird species to a less than significant level. Therefore, overall adverse impacts to nesting migratory bird species would not be cumulatively significant.

As described earlier, the Project site does not contain any native habitat, and is in an area with substantial urban development and limited native habitat. Therefore, loss of potential habitat on the Project site would not be a substantial impact. As a result, when considered with the potential effects of other development in this part of the City of Long Beach on biological resources, the proposed Project would not contribute appreciably to cumulative adverse impacts on biological resources. Therefore, the contribution of the proposed Project to cumulative adverse impacts on biological resources would be less than significant.

4.3.7 Level of Significance before Mitigation

No special-status plant species were observed on site. Therefore, no impact related to a candidate, sensitive, or special-status plant species would occur as a result of implementation of the proposed Project. No significant impacts to these species are anticipated as a result of implementation of the proposed Project (Threshold 4.3.1).

The likelihood of nesting birds occurring on site during the breeding season is high considering the existing presence of birds and the existing trees located on the Project site that may provide habitat for nesting birds. Therefore, impacts would be potentially significant prior to implementation of mitigation (Threshold 4.3.4).

The proposed Project would remove or relocate 30 existing ornamental and nonnative trees that are under jurisdiction of the Tree Removal Ordinance. Therefore, impacts would be potentially significant prior to implementation of mitigation (Threshold 4.3.5).

4.3.8 Mitigation Measures

The following measure is required to ensure compliance with the MBTA.

Mitigation Measure 4.3.1: **Migratory Bird Treaty Act.** Tree and vegetation removal shall be restricted to outside the likely active nesting season (January 15 through September 1) for those bird species present or potentially occurring within the proposed Project area. That time period is inclusive of most other birds' nesting periods, thus maximizing avoidance of impacts to any nesting birds. If construction is proposed between January 15 and September 1, a qualified biologist familiar with local avian species and the requirements of the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code shall conduct a preconstruction survey for nesting birds no more than 3 days prior to construction. The survey shall include the entire area that will be disturbed. The results of the survey shall be recorded in a memorandum and submitted to the City of Long Beach (City) Parks, Recreation, and Marine Director within 48 hours. If the survey is

positive, and the nesting species are subject to the MBTA or the California Fish and Game Code, the memorandum shall be submitted to the California Department of Fish and Wildlife (CDFW) to determine appropriate action. If nesting birds are present, a qualified biologist shall be retained to monitor the site during initial vegetation clearing and grading, as well as during other activities that would have the potential to disrupt nesting behavior. The monitor shall be empowered by the City to halt construction work in the vicinity of the nesting birds if the monitor believes the nest is at risk of failure or the birds are excessively disturbed.

The following measure is required to ensure compliance with the City's local ordinance regarding tree removal.

Mitigation Measure 4.3.2: Local Tree Removal Ordinances. Prior to the start of any demolition or construction activities, the City of Long Beach (City) Parks, Recreation, and Marine Director, or designee, shall obtain a tree removal permit from the City's Director of Public Works. A City-approved Construction Plan shall be submitted with the permit to remove tree(s). The City-approved Plan shall show that the existing City (parkway) tree has a direct impact on the design and function of the proposed Project. The City shall incur all removal costs, including site cleanup, make any necessary repair of hardscape damage, and replace the tree. The removed tree shall be replaced with an approved 15-gallon tree and payment of a fee that is equivalent to a City-approved 15-gallon tree.

4.3.9 Level of Significance after Mitigation

Potential impacts to Biological Resources from the proposed Project would be mitigated to levels that are less than significant with implementation of Mitigation Measures 4.3.1 and 4.3.2. Therefore, the proposed Project would not result in any significant unavoidable impacts related to Biological Resources.

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4.4 CULTURAL AND PALEONTOLOGICAL RESOURCES

This section describes the existing cultural and paleontological resources on the site for the proposed Belmont Pool Revitalization Project (proposed Project), the potential impact of the proposed Project on those resources, and measures to avoid, lessen, and/or mitigate those impacts. The information and analyses provided in this section are summarized from the following technical documents:

- *Cultural Resources Memorandum* (LSA Associates, Inc. [LSA], May 15, 2013)
- *Paleontological Assessment for the Belmont Pool Revitalization Project, 4000 East Olympic Plaza, City of Long Beach, California* (LSA, June 6, 2014)

These technical documents contain information regarding the historic setting and cultural setting of the region, including prehistory, ethnohistory, and historical overviews. Copies of these technical reports are provided in Appendix D in this Draft Environmental Impact Report (EIR).

Scoping Process

The City of Long Beach (City) distributed the first Notice of Preparation (NOP) for the Draft EIR from April 18 to May 17, 2013. The City received three comment letters in response to the original NOP. No comment letter associated with Cultural or Paleontological Resources was received in response to the original NOP circulated for the proposed Project. Due to the revisions in the Project Description, the City re-issued and circulated the NOP for the Draft EIR from April 9, 2014, to May 8, 2014. The City received five comment letters in response to the re-issued NOP during the public review period. One comment letter raised issues regarding Cultural Resources. The Native American Heritage Commission letter (NAHC, April 15, 2014) recommended several actions regarding the proposed Project. Those actions and how they were addressed are summarized in Table 4.4.A.

4.4.1 Methodology

Paleontological Resources. A paleontological literature search and locality review was conducted to obtain geological and paleontological locality information pertinent to the proposed Project and the area immediately surrounding the Project site. This included geologic maps, paleontological literature, and the geotechnical reports that were prepared for the Project. In addition, information from the Natural History Museum of Los Angeles County (LACM) was requested.

The objective of this archival research was to determine the geology of the Project site and whether there were any known paleontological localities within or immediately adjacent to the Project site. Even if there were no known localities nearby, the results could be used to determine whether there were any geologic formations in the Project area with the potential to contain paleontological resources based on localities from similar sediments.

Table 4.4.A: Summary of Recommendations from the Native American Heritage Commission

Recommendation	How Recommendation was Addressed
Contact the appropriate Information Center for a records search.	A records search was completed on April 4, 2013, at the South Central Coastal Information Center of the California Historical Resources Information System at California State University, Fullerton.
Prepare a professional report detailing the findings and recommendations of the records search and field survey.	Refer to the <i>Cultural Resources Memorandum</i> dated May 15, 2013.
Contact the list of Native American contacts provided with the NAHC letter.	Native American consultation is not warranted because the proposed Project is not subject to the requirements of Senate Bill 18, is not considered to be archaeologically sensitive.
Include mitigation for: <ol style="list-style-type: none"> 1. The identification and evaluation of accidentally discovered archeological resources; 2. Monitoring in areas of identified archeological sensitivity; 3. Provisions for the disposition of recovered artifacts; and 4. Provisions in the event of the discovery of human remains. 	<ol style="list-style-type: none"> 1. Due to the previous grading that has occurred on the Project site, the lack of evidence of prehistoric use of the site as noted during a site survey in April 2013, and the fact that no prehistoric sites have been recorded within 0.25 mile of the site, no mitigation is required. 2. Based on the results of the records review and literature search and evaluation conducted for the Project, the potential for on-site archeological resources is minimal and no monitoring is recommended for this Project. 3. See Response No. 2. 4. In the unlikely event that human remains are encountered during demolition of the existing structures and features and grading/excavation for the Project, the proper authorities would be notified, and standard procedures for the respectful handling of the human remains activities would be adhered to in compliance with State Health and Safety Code Section 7050.5 and PRC Section 5097.98.

NAHC = Native American Heritage Commission
 PRC = Public Resources Code

Archeological Resources. A records search was completed on April 4, 2013, at the South Central Coastal Information Center (SCCIC) of the California Historical Resources Information System at California State University, Fullerton. The record search identified no recorded cultural resources on the Project site, or within 0.25 mile of the Project site. Two cultural resource surveys have been previously completed that include the Project site. In addition, Directory of Properties of the Historic Property Data (HPD) File for Los Angeles County and a copy of the historic *Long Beach, California* 7.5-minute quadrangle map (USGS 1925) and aerial photographs were reviewed. Two cultural resource surveys were also completed that include the Project area. Because the Project site is fully

developed with structures, parking, landscaping, roadway, and other features, no on-site survey for archeological resources was conducted.

Historic Resources. Potential historic resources in the City are evaluated under one or more of three established sets of criteria of significance, corresponding to federal, State, and local designation programs. To be eligible for inclusion in the National Register of Historic Places (National Register), the California Register of Historical Resources (California Register), or for listing as a landmark or landmark district of the City, a property must satisfy one or more of the appropriate registration criteria. Due to its age, the former Belmont Pool was not considered a historic structure, and no further historic resource evaluation is warranted.

4.4.2 Existing Environmental Setting

Paleontological Resources. The Project area is located at the northern end of the Peninsular Range Geomorphic Province, a 900-mile northwest-southeast trending structural block that extends from the tip of Baja California to the Transverse Ranges and includes the Los Angeles (LA) Basin. Specifically, the Project is located within the LA Basin. The LA Basin is a broad, almost level alluvial plain with a gradient of 0.5 to 1 percent. It is bounded on the north and northeast by hills and mountains of the Northern Peninsular and Transverse Ranges and on the south and west by the Pacific Ocean. The LA Basin is divided into several areas. The Downey Plain, in which the Project site lies, is the largest section and is located in the central portion of the LA Basin.

According to the results of the locality search conducted through the LACM the surficial deposits within the Project are composed of active beach sands. These types of sediments typically do not contain significant vertebrate fossils at least in the uppermost layers; however, the LACM states that these deposits often overlie sediments that can contain paleontological resources. The closest locality to the Project that is within similar sediments and that may be encountered at depth within the Project is LACM 2031, near the intersection of Grand Avenue and East Livingston Drive (800 feet [ft] to the northwest), which produced a specimen of a Bison (*Bison* sp.) at a depth of approximately 25 ft. The next closest locality is LACM 7739, located between the parking lot of Bluff Park and the shoreline (1.1 mile to the west), which produced a rich suite of fossil marine vertebrates, including sharks, rays, and bony fish (see full list in Appendix D), as well as associated fossil invertebrates (including snails, clams, tusk shells, barnacles, crabs, and sea urchins) at a depth of approximately 25 ft below the surface. Just to the west of locality LACM 7739, located across from Bixby Park south of Ocean Boulevard at approximately 17th Place (1.3 miles to the west), LACM 1005 produced fossil specimens of mammoth (*Mammuthus columbi*) and ground sloth (*Nothrotheriops shastensis*) at approximately 60 ft below the surface. Finally, LACM 6896, located along Ocean Boulevard near its intersection with Magnolia Avenue (approximately 3 miles to the west), produced a whale humerus at a depth of less than 100 ft during pile-driving activities.

Artificial Fill has been mapped as occurring on the surface of the Project site. Artificial Fill is also noted as being present on the surface of the Project site in the geotechnical report and may extend 4 to 5 ft below the surface. The geotechnical report also states that beneath the Artificial Fill are deposits of alluvium and of beach and estuary-type sediments that extend to the deepest borings that reached 75 ft below the surface. Record searches also indicate that Late Pleistocene to Holocene Alluvium

and Late Holocene deposits of beach and estuarine sediments are located nearby. Each unit is described in more detail below.

Artificial Fill. Artificial Fill consists of sediments that have been removed from one location and transported to another by humans. The transportation distance can range from a few feet to dozens of miles. Composition is dependent on the source. When Artificial Fill is compacted and dense, it is known as “engineered fill,” but it can be unconsolidated and loosely compacted. Artificial Fill will sometimes contain modern debris such as asphalt, wood, bricks, concrete, metal, glass, plastic, and even plant material. Depending on the area, thickness can be less than 1 ft or several hundred feet. Within the subsurface of the Project, the geotechnical studies indicate that the thickness of the Artificial Fill ranges between 1.5 and 3.5 ft thick.

Very Young Beach Deposits. These deposits are unconsolidated and consist mostly of well-sorted fine- to coarse-grained sand and sand-sized fragments of fragmented shells within areas subjected to active wave action. These sediments were deposited during the late Holocene. These sediments are likely less than several 1,000 years old given the fact that sea levels have been relatively stable over the last 7,000 years and that prior to this time (18,000 to 7,000 years ago) sea levels had been mostly rising due to melting glaciers. The active beach was well off shore and approximately 400 ft below the current sea level 18,000 years ago. These sediments can be several feet to possibly tens of feet thick, and in the active beach zone, this thickness can vary with the seasonal movement of the sand both on- and off-shore. Within the Project site, the geotechnical studies indicate these sediments may range in thickness between 8 and 13 ft below the Artificial Fill.

Very Young Estuarine Deposits. These deposits are composed mostly of loose to moderately dense fine-grained sand, silt, and clay. These sediments were deposited in an estuary-type environment. Like the Very Young Beach Deposits, these sediments are likely less than several thousand years old for the same reason given above. Within the Project area, these sediments are 4 to 15 ft thick and both underlie and interfinger with the Very Young Beach Deposits.

Young Alluvial Floodplain Deposits. Young Alluvial Floodplain Deposits were deposited during the Holocene to the late Pleistocene. These sediments are less than 126,000 years old; however, it is likely that the upper approximately 15 ft of these deposits are from the Holocene and are less than 11,700 years old. These deposits are composed of mixtures of gravel, sand, silt, or mud that were deposited by flowing water in a stream or river.

Within the Project site, these Pleistocene sediments will likely not be encountered until a depth of at least 23 ft below the surface is reached. This minimum depth is based on minimums of 1 to 2 ft of Artificial Fill, 8 ft of Very Young Beach Deposits, 4 ft of Very Young Estuarine Deposits, and 10 ft of Holocene Alluvium.

4.4.3 Regulatory Setting

State Regulations and Policies.

CEQA Requirements. The California Environmental Quality Act (CEQA) defines a “historical resource” as a resource that meets one or more of the following criteria: (1) listed in, or determined eligible for listing in, the California Register; (2) listed in a local register of historical resources as defined in Public Resources Code (PRC) Section 5020.1(k); (3) identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); or (4) determined to be a historical resource by a project’s Lead Agency (PRC Section 21084.1 and *State CEQA Guidelines* Section 15064.5(a)). A historical resource consists of:

“Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.... Generally, a resource shall be considered by the lead agency to be ‘historically significant’ if the resource meets the criteria for listing on the California Register of Historical Resources” *State CEQA Guidelines* Section 15064.5(a)(3).

In accordance with *State CEQA Guidelines* Section 15064.5(b), a substantial adverse change in the significance of a historical resource may have a significant effect on the environment.

CEQA also requires that a determination be made as to whether a project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature (*State CEQA Guidelines* Appendix G (v)(c)). If an impact is significant, CEQA requires feasible measures to minimize the impact (*State CEQA Guidelines* Section 15126.4 [a][1]). California PRC Section 5097.5 also applies to paleontological resources (see below).

Public Resources Code Section 5097.5. PRC Section 5097.5 provides for the protection of cultural and paleontological resources and prohibits the removal, destruction, injury, or defacement of archaeological and paleontological features on any lands under the jurisdiction of State or local authorities.

4.4.4 Impact Significance Criteria

The thresholds for impacts on cultural and paleontological resources used in this analysis are consistent with the Environmental Checklist in Appendix G of the *State CEQA Guidelines*. The proposed Project may be deemed to have a significant impact with respect to cultural or paleontological sources resources if it:

Threshold 4.4.1: Causes a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 in the State CEQA Guidelines;

Threshold 4.4.2: Causes a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 in the State CEQA Guidelines;

Threshold 4.4.3: Directly or indirectly destroys a unique paleontological resource or site or unique geologic feature; or

Threshold 4.4.4: Disturbs any human remains, including those interred outside of formal cemeteries.

The Initial Study (IS)/NOP prepared for the proposed Project identified potential impacts related to the possibility for the proposed Project to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. In addition, this Draft EIR addresses whether development of the proposed Project would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

The IS/NOP additionally recognized that potential historic resources in the City are evaluated under one or more of three established sets of criteria of significance, corresponding to federal, State, and local designation programs. To be eligible for inclusion in the National Register or the California Register or for listing as a landmark or landmark district of the City, a property must satisfy one or more of the appropriate registration criteria. In addition, the property must retain sufficient integrity to convey the reasons for its significance. The IS/NOP stated that the City determined that, due to the age of the former Belmont Pool structures and facilities at the time of the NOP (approximately 45 years old), the complex was not considered a historic structure, and no further historic resource evaluation was required.

In addition, the former indoor pool was closed to the public on January 13, 2013, as a result of substandard seismic and structural conditions, and was demolished in February 2015, as it was determined to be an imminent threat to public safety. The demolition of the structure was conducted under an emergency permit. As a result, the Project will not cause a substantial change in the significance of a historical resource as defined in Section 15064.5. Therefore, this topic will not be analyzed further in this EIR.

As a part of the IS/NOP, an archaeological and historical records review and literature search was conducted on April 4, 2013, through the SCCIC of the California Historical Resources Information System at California State University, Fullerton. The results of the records search indicate that there are no sites within 0.25 mile of the Project area. Two cultural resource surveys have been previously completed that include the entire Project area. Because the Project site at the time of the NOP was fully developed with structures, parking, landscaping, roadway, and other features, no on-site survey for archeological resources was necessary. Based on the results of the records review and literature search and evaluation conducted for the Project, the potential for on-site archeological resources is minimal and it was determined that archaeological resources will not be analyzed further in this EIR.

Additionally, the IS/NOP stated that based on the results of records searches performed for the site, there are no known human remains interred on the Project site. In the unlikely event that human remains are encountered during demolition of the existing structures and features and grading/excavation for the Project, the proper authorities would be notified, and standard procedures for the respectful handling of the human remains activities would be adhered to in compliance with State Health and Safety Code Section 7050.5 and PRC Section 5097.98. As a result, the Project would not disturb human remains, and this topic will not be analyzed further in this EIR.

CEQA Baseline. At the time the NOP was published (April 2014), the Project site contained both the Belmont Pool facilities and the outdoor temporary pool (opened in December 2013 to provide swimming facilities while the permanent facility was under construction). Although the site contained the former Belmont Pool building at the time of the NOP, the facility was subsequently demolished in February 2015 to alleviate an imminent public safety threat due to the seismically unsafe condition of the building. Therefore, the former Belmont Pool building is not included as a part of the baseline existing conditions.

Assessing cultural resource impacts without the former pool building is appropriate because prior to demolition, the City had determined that, due to the age of the former Belmont Pool structures and facilities at the time of the NOP (approximately 45 years old), the complex was not considered a historic structure, and no further historic resource evaluation was required. The building has subsequently been removed due to its public safety threat, and the adjacent hardscaping (sidewalks and walkways) has also been removed. Based on the archaeological and historical records review and literature search, no known archaeological resources are located on the site or within 0.25 mile of the Project area. Therefore, substantial evidence supports the determination that a baseline condition without the former structure is appropriate because it is based on assessments, records review, and a literature search that found no record of known historic or cultural resources on the site.

4.4.5 Project Impacts

Threshold 4.4.3: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant Impact with Mitigation Incorporated. All vertebrate fossils that can be related to a stratigraphic context are significant and are considered significant nonrenewable paleontological resources. Invertebrate and plant fossils, as well as other environmental indicators associated with vertebrate fossils, are considered significant. Certain invertebrate and plant fossils that are regionally rare or uncommon, or help to define stratigraphy, age, environmental conditions, or taxonomic relationships, are considered significant.

A formation or rock unit has paleontological sensitivity, or the potential for significant paleontological resources, if it previously has produced, or has lithologies conducive to, the preservation of vertebrate fossils and associated or regionally uncommon invertebrate and plant fossils. All sedimentary rocks, certain extrusive volcanic rocks, and mildly metamorphosed rocks are considered to have potential for paleontological resources.

As discussed above, the results of the locality search and field survey conducted during preparation of this report indicate that Artificial Fill, Very Young Beach Deposits, Very Young Estuarine Deposits, and Young Alluvial Floodplain Deposits have the potential for being encountered within the Project site. Below is a summary of each of the sediments' potential for paleontological significance.

Artificial Fill. Artificial Fill can contain fossils, but these fossils have been removed from their original location and are thus out of context. They are not considered to be important for scientific study and, therefore, are not significant.

Very Young Beach Deposits. Although Very Young Beach Deposits can contain remains of animals such as shells, shell fragments, and occasional bones, based on their young age, not enough time has passed for the remains to become fossilized; in addition, the remains are contemporaneous with modern species and are usually not considered to be significant.

Very Young Estuarine Deposits. Very Young Estuarine Deposits can contain remains of animals such as shells, shell fragments, and occasional bones. However, based on their young age, not enough time has passed for the remains to become fossilized. In addition, the remains are contemporaneous with modern species and are usually not considered to be significant.

Young Alluvial Floodplain Deposits. The upper 10 ft of thickness of these sediments is likely from the Holocene and is less than 11,700 years old. Once a depth of 10 to 15 ft of thickness for these sediments is reached (potentially as shallow as 23 ft below the ground surface), it is possible that alluvial sediments from the Pleistocene will be encountered, and these older sediments can and do contain fossils. Mammoths are the indicator fossil for the Pleistocene Epoch, which is divided into the older Irvingtonian North American Land Mammal Age (NALMA), which spans the period between 2.58 million and 240,000 years ago, and the Rancholabrean NALMA, which spans the last 240,000 years of the Pleistocene. Within the Project area, these sediments will be from the Rancholabrean NALMA. The indicator fossil for the Rancholabrean NALMA is *Bison* sp. Other fossils that may be present include camels, antelopes, saber-toothed cats, dire-wolves, bears, deer, sloths, rodents, birds, reptiles, and fish. There is potential for these types of fossils whenever Pleistocene alluvial sediments are exposed. Pleistocene fossils are scientifically significant, as they add to an understanding of the climatic and habitat conditions as well as the diversity of life during Pleistocene times in Southern California. Therefore, there is a potential for significant fossil remains to be encountered during grading activities at depths of 23 ft or greater. Mitigation Measure 4.4.1 requires a qualified paleontologist to be retained to monitor grading activities. Any collected specimens would be prepared, identified, cataloged, and donated to an accredited repository. Implementation of Mitigation Measure 4.4.1 would ensure that impacts to paleontological resources are reduced to below a less than significant level.

4.4.6 Cumulative Impacts

Less than Significant Impact with Mitigation Incorporated. As defined in the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for cultural and paleontological resources. The cumulative study area for cultural and paleontological resources is the geographical area of the City of Long Beach, which is the geographical area covered by the City's General Plan, including all goals and policies therein. Future development in the City could include excavation and grading that could potentially impact archaeological and paleontological resources and human remains. The cumulative effect of the proposed Project would be the continued loss of these resources. The proposed Project, in conjunction with other development in the City, has the potential to cumulatively impact archaeological and paleontological resources; however, it should be noted that each development proposal received by the City undergoes environmental review pursuant to CEQA. If there is a potential for significant

impacts to archaeological or paleontological resources, an investigation would be required to determine the nature and extent of the resources and to identify appropriate mitigation measures. If subsurface cultural resources are assessed and/or protected as they are discovered, impacts to these resources would be less than significant. In addition, applicable City ordinances and General Plan policies would be implemented as appropriate to reduce the effects of additional development within the City.

Mitigation Measure 4.4.1 would be implemented during construction of the proposed Project to reduce potential Project impacts by ensuring avoidance, evaluation, and, as applicable, scientific recovery and study of any resources encountered. Therefore, with implementation of Mitigation Measures 4.4.1, the contribution of the proposed Project to the cumulative loss of known and unknown cultural resources throughout the City would be reduced to below a level of significance.

4.4.7 Level of Significance Prior to Mitigation

The proposed Project would not have a significant impact on known paleontological resources on the proposed Project. However, the Project has the potential to result in a substantial adverse impact to the significance of unknown (buried) paleontological resources within the Project site prior to mitigation, if there is excavation that extends deeper than 23 ft below the surface, or if there are any unanticipated discoveries at shallower depths.

4.4.8 Mitigation Measure

Mitigation Measure 4.4.1 Paleontological Resources Impact Mitigation Program. Prior to commencement of any grading or excavation activity on site, the City of Long Beach (City) Development Services Director, or designee, shall verify that a paleontologist has been retained on an on-call basis for all excavation from the surface to depths of 23 feet (ft) below the surface. Once a depth of 23 ft is reached, the paleontologist shall visit the site and determine if there is a potential for the sediments at this depth to contain paleontological resources.

A paleontologist shall not be required on site if excavation is only occurring in depths of less than 23 ft, unless there are discoveries at shallower depths that warrant the presence of a paleontological monitor. In the event that there are any unanticipated discoveries, the on-call paleontologist shall be called to the site to assess the find for significance, and if necessary, prepare a Paleontological Resources Impact Mitigation Program (PRIMP) as outlined below.

If excavation will extend deeper than 23 ft, exclusive of pile-driving and vibro-replacement soil stabilization techniques, the paleontologist shall prepare a PRIMP for the proposed Project. The PRIMP should be consistent with the guidelines of the Society of Vertebrate Paleontologists (SVP, 1995 and 2010) and shall include but not be limited to the following:

- Attendance at the pre-grade conference or weekly tailgate meeting if the PRIMP is initiated after the commencement of grading, in order to explain the mitigation measures associated with the Project.
- During construction excavation, a qualified vertebrate paleontological monitor shall initially be present on a full-time basis whenever excavation shall occur within the sediments that have a high paleontological sensitivity rating. Based on the significance of any recovered specimens, the qualified paleontologist may set up conditions that shall allow for monitoring to be scaled back to part-time as the Project progresses. However, if significant fossils begin to be recovered after monitoring has been scaled back, conditions shall also be specified that would allow increased monitoring as necessary. The monitor shall be equipped to salvage fossils and/or matrix samples as they are unearthed in order to avoid construction delays. The monitor shall be empowered to temporarily halt or divert equipment in the area of the find in order to allow removal of abundant or large specimens.
- The underlying sediments may contain abundant fossil remains that can only be recovered by a screening and picking matrix; therefore, these sediments shall occasionally be spot-screened through 1/8 to 1/20-inch mesh screens to determine whether microfossils exist. If microfossils are encountered, additional sediment samples (up to 6,000 pounds) shall be collected and processed through 1/20-inch mesh screens to recover additional fossils. Processing of large bulk samples is best accomplished at a designated location within the Project that shall be accessible throughout the Project duration but shall also be away from any proposed cut or fill areas. Processing is usually completed concurrently with construction, with the intent to have all processing completed before, or just after, Project completion. A small corner of a staging or equipment parking area is an ideal location. If water is not available, the location should be accessible for a water truck to occasionally fill containers with water.
- Preparation of recovered specimens to a point of identification and permanent preservation. This includes the washing and picking of mass samples to recover small invertebrate and vertebrate fossils and the removal of surplus sediment from around larger specimens to reduce the volume of storage for the repository and the storage cost.
- Identification and curation of specimens into a museum repository with permanent retrievable storage, such as the Natural History Museum of Los Angeles County (LACM).

- Preparation of a report of findings with an appended itemized inventory of specimens. When submitted to the City Development Services Director, or designee, the report and inventory would signify completion of the program to mitigate impacts to paleontological resources.

4.4.9 Level of Significance after Mitigation

Potential impacts to paleontological resources from the proposed Project would be mitigated to levels that are less than significant with implementation of Mitigation Measure 4.4.1. Therefore, with mitigation, the proposed Project would not result in any significant unavoidable impacts related to Cultural or Paleontological Resources.

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4.5 GEOLOGY AND SOILS

This section describes the existing geologic and soils conditions on and in the vicinity of the site for the proposed Belmont Pool Revitalization Project (proposed Project), the potential impacts of and on the proposed Project related to geology and soils, and measures to avoid, lessen, and/or mitigate these impacts. This section also addresses the potential for damage to occur to the Project site due to the local geology underlying the proposed Project site, as well as slope stability, ground settlement, soil conditions, and regional seismic conditions. The information and analyses provided in this section are summarized from the following reports:

- *Report of Preliminary Geotechnical Investigation for the Proposed Belmont Plaza Olympic Pool Revitalization Project (Preliminary Geotechnical Investigation)*, prepared by MACTEC (April 14, 2009);
- *Geotechnical Investigation for the Temporary Myrtha Pool and Associated Improvements, Belmont Plaza Revitalization*, prepared by GMU Geotechnical, Inc. (April 3, 2013);
- *Preliminary Geotechnical Report for the Belmont Plaza Pool Rebuild-Revitalization Project (Preliminary Geotechnical Report)*, prepared by AESCO (April 24, 2014); and
- *Soil Corrosivity Evaluation for the Belmont Plaza Pool Facility Rebuild/Revitalization Project*, prepared by HDR Schiff (April 23, 2014).

These reports are collectively referred to as the *Geotechnical Evaluations* and are included in Appendix E of this Draft Environmental Impact Report (EIR).

Scoping Process

The City of Long Beach (City) distributed the first Notice of Preparation (NOP) for the Draft EIR from April 18 to May 17, 2013. The City received three comment letters in response to the original NOP. No comments related to geology and soils were received in response to the original NOP circulated for the proposed Project. Due to revisions in the Project Description, the City re-issued the NOP for the Draft EIR from April 9, 2014, to May 8, 2014. The City received five comment letters in response to the re-issued NOP during the public review period. No Geology and Soils issues were raised in those comment letters.

4.5.1 Methodology

The purpose of the *Preliminary Geotechnical Investigation* (2009) and the *Preliminary Geotechnical Report* (2014) was to evaluate the potential for structural damage due to the local geology underlying the proposed Project area, as well as slope instability, ground settlement, unstable soil conditions, and regional seismic conditions. Geologic/geotechnical conditions affecting the site are summarized from compiled information and analyses, including referenced documents/publications and the site-specific *Geotechnical Evaluations* (MACTEC 2009, GMU Geotechnical Inc. 2013, and AESCO 2014), included in Appendix E of this EIR.

4.5.2 Existing Environmental Setting

Regional Geology. The Project site lies within the southwestern block of the Los Angeles Basin in the coastal plain of the Peninsular Ranges Geomorphic Province. The Geomorphic Province encompasses an area that extends approximately 125 miles from the Transverse Ranges and the Los Angeles Basin south to the Mexican border and the tip of Baja California. The Peninsular Ranges vary in width from approximately 30 to 100 miles and are generally characterized by northwest-trending mountain ranges separated by subparallel fault zones. Structurally, the Project site is between the active fault traces of the Newport-Inglewood Fault Zone 1.5 miles to the north, and the Palos Verdes Fault, 7 miles to the southwest (see Figure 4.5.1).

Subsurface Conditions. According to the *Geotechnical Evaluations* prepared for the proposed Project, the site is located within an area that has been significantly altered by previous construction activities, and as a result, is underlain by 3 feet (ft) of undifferentiated Artificial Fill material generally comprised of silty sands that has been placed over native young alluvium and estuarine deposits. These alluvial sediments consist of sands, silty sands, sandy silt, and sandy clays. During the subsurface explorations, groundwater was encountered in the borings at depths ranging between 5 and 9 ft below existing grade during testing for the *Preliminary Geotechnical Investigation* conducted in 2009 and at depths between 6 and 9 ft below ground surface (bgs) during testing for the *Preliminary Geotechnical Report* conducted in 2014. Additionally, according to the *Preliminary Geotechnical Report*, historical high groundwater is anticipated to occur at a depth of less than 10 ft.

During the geotechnical Cone Penetration Tests (CPTs) conducted for the *Preliminary Geotechnical Investigation* and other subsurface explorations, it was determined that the site is underlain by approximately 8 to 13 ft of poorly graded sand and silty sand, a 4 to 15 ft thick layer of intermixed clay and silty clay, and then poorly graded sand and silty sand to 50 ft. The poorly graded sands and silty sands are loose-to-medium dense with rootlets in the upper 12 to 18 inches, becoming medium-dense to dense below, while the underlying clays and silty clays are firm.

The *Preliminary Geotechnical Report* (2014) bored to depths ranging from 35 ft to 80 ft bgs, and concluded that below the 3 ft of silty sand fill material, medium dense to very dense sand, very soft to very stiff sandy silt, very soft to very stiff sandy clay and silty clay, medium dense to very dense sand/silty sand, and medium dense to dense silty sand exist below the Project site.

Faulting and Seismic Shaking. There is a high potential for strong seismic shaking to occur in the Project area during the design life of the Project because the Project site is located in highly seismic southern California within the influence of several active or potentially active fault systems. An “active” fault is defined by the State of California as being a “...sufficiently active and well defined fault...” that has exhibited surface displacement within Holocene time (about the last 11,000 years). A “potentially active” fault is defined as showing evidence of surface displacement during the Quaternary time (about the last 1.6 million years). These terms are used, however, by the State primarily for use in evaluating the potential for surface rupture along faults and are not intended to describe possible seismic activity associated with displacement along a fault. These definitions are not applicable to blind thrust faults that have only limited, if any, surface exposures. The active and

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potentially active faults are capable of producing potentially damaging seismic shaking at the Project site. It is anticipated that the Project site will periodically experience ground acceleration as the result of earthquakes. Active faults without surface expression (blind faults) and other potentially active seismic sources, which are capable of generating earthquakes, are not known to be locally present under the region. The closest mapped active faults to the Project site are the Newport-Inglewood Fault and the Palos Verdes Fault Zones, which are approximately 1.5 miles and 7 miles from the site, respectively.

Ground or seismic shaking is typically considered to have the greatest potential for damage associated with earthquakes for the Project site. Seismic shaking is characterized by the physical movement of the land surface during and subsequent to an earthquake. Seismic shaking has the potential to cause destruction and damage to buildings and property, including damage resulting from damaged or destroyed gas or electrical utility lines; disruption of surface drainage; blockage of surface seepage and groundwater flow; changes in groundwater flow; dislocation of street alignments; displacement of drainage channels and drains; and possible loss of life. In addition, ground shaking can induce several kinds of secondary seismic effects, including liquefaction, differential settlement, and landslides.

The intensity of seismic shaking during an earthquake depends largely on the geologic foundation conditions of the materials composing the upper several hundred feet of the Earth's surface. The greatest amplitudes and longest durations of ground shaking occur on thick, water-saturated, unconsolidated alluvial sediments, which may lead to liquefaction (further described below). Ground shaking can also cause ground failure or deformation due to lurching and liquefaction.

Surface fault rupture refers to the displacement of the ground surface along a fault, which can occur during strong earthquakes. The potential for seismic hazards at the Project site is a consequence of ground shaking caused by events on nearby active faults. The primary seismic hazard for the proposed Project site is ground shaking due to the proximity of major active faults. According to the *Geotechnical Evaluations* prepared for the Project site, the proposed Project area is not located within an Alquist-Priolo Earthquake Fault Zone, so the possibility for surface fault rupture is low. However, based on the current understanding of the geologic framework of the area, ground shaking resulting from an earthquake occurring along regional faults is the seismic hazard with the highest probability of affecting the Project site. A fault is described as the area where two tectonic or continental plates meet.

Potential seismic hazards at the subject site include ground shaking, seismically induced liquefaction, and various manifestations of liquefaction-related hazards, including lateral spreading. A brief description of these hazards and the potential for their occurrences on site are discussed below.

Ground Motion. The *Geotechnical Evaluations* included an assessment of ground shaking hazards, including a review of a probabilistic seismic hazard assessment that consisted of statewide estimates of peak horizontal ground accelerations conducted for California. In addition, a site-specific probabilistic seismic hazard analysis was performed to evaluate anticipated peak ground acceleration (PGA), which is a measure of earthquake acceleration on the ground and an important input parameter for earthquake engineering. A PGA of 0.34 g can be expected at the site, with a 10 percent chance of exceeding that rate in 50 years. The “predominant earthquake”

that would contribute most to the ground-shaking hazard at 10 percent probability of exceedance in 50 years is a magnitude 7.1 event on the nearby portion of the Newport-Inglewood Fault Zone.

Liquefaction and Lateral Spreading. Lateral spreading typically occurs as a form of horizontal displacement of relatively flat-lying alluvial material toward an open or “free” face such as an open body of water, channel, or excavation. In soils, this movement is generally due to failure along a weak plane and may often be associated with liquefaction. Liquefaction is caused by sudden, temporary increases in pore water pressure due to seismic densification or other displacement of submerged granular soils. Intervals of loose sand may, therefore, be subject to liquefaction if these materials are or were to become submerged and also exposed to strong seismic ground shaking. Seismic ground shaking of relatively loose granular soils that are saturated or submerged can cause the soils to liquefy and temporarily behave as a dense fluid. This loss of support can produce local ground failure such as settlement or lateral spreading that may damage overlying improvements. The *Geotechnical Evaluations* prepared for the Project indicate that the site is within a State of California-designated Liquefaction Hazard Zone, and the City’s General Plan Seismic Safety Element indicates that the entire Project site is within an area determined to have significant liquefaction potential. The liquefaction analysis indicated the underlying soils below the groundwater level may be subject to liquefaction during a design seismic event.

Subsidence. The phenomenon of soil liquefaction may result in hazards, including liquefaction-induced settlement. The amount of soil settlement during a strong seismic event depends on the thickness of the liquefiable layers and the density and/or consistency of the soils. Results from the *Geotechnical Evaluations* conducted in 2009 and 2013 determined that the area surrounding and including the Project site is subject to post-earthquake dynamic ground settlements ranging from approximately 0.75 to 2.75 inches that are estimated to occur in relatively saturated soil.

4.5.3 Regulatory Setting

Federal Policies and Regulations.

National Pollution Discharge Elimination System. A Storm Water Pollution Prevention Plan (SWPPP) prepared in compliance with a National Pollutant Discharge Elimination System (NPDES) Phase I Permit describes erosion and sediment controls, runoff water quality monitoring, means of waste disposal, implementation of approved local plans, control of postconstruction sediment and erosion control measures and maintenance responsibilities, and nonstorm water management controls. Dischargers are also required to inspect construction sites before and after storms to identify storm water discharge from construction activity and to identify and implement controls where necessary.

State Policies and Regulations.

Alquist-Priolo Earthquake Fault Zoning Act (1972). Regulations that are applicable to geologic, seismic, and soil hazards include the Alquist-Priolo Earthquake Fault Zoning Act of

1972 and updates (Public Resources Code, Section 2621 et seq.), State-published Seismic Hazards maps, and provisions of the applicable edition of the California Building Code (CBC). The Project site is not located within an Alquist-Priolo Earthquake Fault Zone; therefore, procedures and regulations recommended by the California Geological Survey (CGS) for investigations conducted in such zones do not specifically apply.

Seismic Hazard Mapping Act (1990). The Seismic Hazard Mapping Act (SHMA) was adopted by the State in 1990 for the purpose of protecting public safety from the effects of (nonsurface fault rupture) earthquake hazards. The CGS prepares and provides local governments with seismic hazard zones maps that identify areas susceptible to amplified shaking, liquefaction, earthquake-induced landslides, and other ground failures. The seismic hazards zones are referred to as “zones of required investigation” because site-specific geological investigations are required for construction projects located within these areas. Before a project can be permitted, a geologic investigation, evaluation, and written report must be prepared by a licensed geologist to demonstrate that proposed buildings will not be constructed across active faults. If an active fault is found, a structure for human occupancy must be set back from the fault (generally 50 ft). In addition, sellers (and their agents) of real property within a mapped Seismic Hazard Zone must disclose that the property lies within such a zone at the time of sale.

California Building Code (2013). California Code of Regulations (CCR), Title 24, Part 2, the CBC, provides minimum standards for building design in the State. Local codes are permitted to be more restrictive than Title 24, but not less restrictive. The procedures and limitations for the design of structures are based on site characteristics, occupancy type, configuration, structural system height, and seismic zoning. Seismic ratings from the CBC divide the United States into four geographical zones. Most of central and coastal California, including the proposed Project site, is located in Seismic Category D. Construction activities are subject to occupational safety standards for excavation, shoring, and trenching as specified in California Occupational Safety and Health Administration (Cal/OSHA) regulations (CCR, Title 8).

California Health and Safety Code. Sections 17922 and 17951–17958.7 of the California Health and Safety Code require cities and counties to adopt and enforce the current edition of the CBC, including a grading section. The City enforces these provisions as part of the Long Beach Municipal Code (LBMC Chapter 18.40). Sections of Volume 2 of the CBC specifically apply to select geologic hazards. Chapter 16 of the 2010 CBC addresses requirements for seismic safety. Chapter 18 regulates excavation, foundations, and retaining walls. Chapter 33 contains specific requirements pertaining to site demolition, excavation, and construction.

Local Policies and Regulations.

City of Long Beach Municipal Code. Building and construction in the City of Long Beach are subject to the regulations of the City of Long Beach Municipal Code. Municipal Code 18.40, Building Codes, adopts and incorporates by reference the CBC. This Municipal Code chapter includes amendments and modifications to the CBC that are specific to the City of Long Beach.

City of Long Beach General Plan. The City of Long Beach adopted the Seismic Safety Element of the General Plan in October 1988. The purpose of this Element is to provide a comprehensive analysis of seismic factors in order to reduce the loss of life, injuries, damage to property, and social and economic impacts resulting from future earthquakes. The Seismic Safety Element contains goals and recommendations that provide guidance for development in seismically active areas. Specifically, the Element contains goals such as: (1) reducing public exposure to seismic risks; (2) providing an urban environment which is as safe as possible from seismic risk; and (3) providing the maximum feasible level of seismic safety protection services.

4.5.4 Impact Significance Criteria

The thresholds for impacts related to geology and soils used in this analysis are consistent with Appendix G of the *State California Environmental Quality Act (CEQA) Guidelines*. The proposed Project may be deemed to have a significant impact with respect to geology and soils if it would:

- Threshold 4.5.1: Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving:**
- i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; refer to Division of Mines and Geology Special Publication 42;**
 - ii) Strong seismic ground shaking;**
 - iii) Seismic-related ground failure, including liquefaction; or**
 - iv) Landslides;**
- Threshold 4.5.2: Result in substantial soil erosion or the loss of topsoil;**
- Threshold 4.5.3: Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;**
- Threshold 4.5.4: Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (UBC 1994), creating substantial risks to life or property; or**
- Threshold 4.5.5: Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.**

The Initial Study (IS) provided in Appendix A substantiates the determination that the proposed Project would not result in impacts associated with landslides because the site is relatively flat, and there are no substantial hillsides or unstable slopes immediately adjacent to the site boundary Thresholds 4.5.1 (iv). No impacts were associated with Threshold 4.5.5 because septic tanks and/or alternative waste water disposal systems are not proposed for this Project. As a result, these thresholds are not considered any further in the analyses of the potential impacts of the proposed Project related to geology and soils.

CEQA Baseline. At the time the NOP was published (April 2014), the Project site contained both the Belmont Pool facilities and the outdoor temporary pool (opened in December 2013 to provide swimming facilities while the permanent facility was under construction). Although the site contained the former Belmont Pool building at the time of the NOP, the facility was subsequently demolished in February 2015 to alleviate an imminent public safety threat due to the seismically unsafe condition of the building.

Assessing geology and soils impacts without the former building is appropriate because the structure was removed due to a probability of collapse from a seismic event. The demolition of the structure was conducted under an emergency permit (Statutory Exemption SE14-01). No other structures have been placed on the site of the former building, and there are no remaining structural concerns related to geological conditions at the site. Substantial evidence supports the determination that a baseline condition without that structure is appropriate because seismic and geological concerns associated with the former structure have been remedied through its removal.

4.5.5 Project Impacts

Threshold 4.5.1: **Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving:**

- i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; refer to Division of Mines and Geology Special Publication 42?**

Less than Significant Impact. According to the *Geotechnical Evaluations* prepared for the proposed Project, there are no known active fault or fault traces crossing the site. As stated above, the Project site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone, nor is it currently identified by the regulatory community as being located within zones of either primary or secondary co-seismic surface deformation (e.g., pressure ridges, escarpments, or fissures). Therefore, the site is not expected to experience primary surface fault rupture or related ground deformation, and no mitigation is required.

Threshold 4.5.1: **Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving:**

- ii) **Strong seismic ground shaking?**

Less than Significant Impact with Mitigation Incorporated. The closest mapped active faults to the Project site are the Newport-Inglewood and Palos Verdes Fault Zones. Since the site is located approximately 1.5 miles northeast of the Newport-Inglewood Structural Zone, significant ground shaking or secondary seismic ground deformation effects could occur at the site should a major seismic event occur along the Newport-Inglewood Structural Zone. A peak ground acceleration of 0.34 g can be expected at the site, with a 10 percent chance of exceeding that rate in 50 years. The “predominant earthquake” that would contribute most to the ground-shaking hazard at 10 percent probability of exceedance in 50 years is a magnitude 7.1 event on the nearby portion of the Newport-Inglewood Fault Zone. This strong ground-motion potential could result in significant seismic ground

shaking. On February 17, 2014, the City conducted a structural assessment of the former Belmont Pool facility that evaluated the performance of the building under two different earthquake scenarios. The report acknowledged the determination that the pool building probability of collapse was higher than acceptable standards, and either repair or demolition was recommended. Therefore, the City demolished the former pool building under an emergency permit (Statutory Exemption SE14-01) under a separate project. This proposed Project is intended to provide both the City and the public with a new seismically sound structure.

As with most areas in Southern California, damage to proposed Belmont Pool facilities and infrastructure could be expected as a result of significant ground shaking during a strong seismic event in the region. However, the proposed structures would be designed and built in conformance with the most current adopted CBC, including seismic safety standards. Mitigation Measure 4.5.1 requires the City to comply with the recommendations of the Geotechnical Evaluations and the most current CBC, which stipulates appropriate seismic design provisions that shall be implemented with Project design and construction. With implementation of Mitigation Measure 4.5.1 potential Project impacts related to seismic ground shaking would be reduced to a less than significant level.

Threshold 4.5.1: Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving:
iii) Seismic-related ground failure, including liquefaction?

Less than Significant Impact with Mitigation Incorporated. See response to Threshold 4.5.3 (Lateral Spreading and Liquefaction), below.

Threshold 4.5.2: Would the project result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact with Mitigation Incorporated. During the construction activities of the proposed Project, there is a potential for disruption of the soils on the entire Project site. Construction of the proposed Project includes excavation of soils to install the proposed pools, trenching for utilities, and finish grading and site preparation for the proposed structures and hardscaping. These activities could potentially result in erosion and loss of topsoil.

All excavation, trenching, and compaction activities would be performed under the observation of a qualified engineer. The Project would be required to adhere to all applicable construction standards with regard to erosion control. Erosion control measures typically identify how all construction materials, wastes, or demolition debris, etc., shall be properly covered, stored, and secured to prevent transport into local drainages or coastal waters by wind, rain, tracking, tidal erosion, or dispersion.

In addition, the Project would be subject to the SWPPP requirements for erosion and sedimentation control during construction (refer to Section 4.8, Hydrology and Water Quality). Best management practices (BMPs), including biofiltration, capture and retention, and infiltration techniques, would be undertaken to control runoff and erosion from any earthmoving activities such as excavation and compaction. The objective of erosion control BMPs is to control runoff and erosion so that sediments do not impact water quality. Standard Condition 4.2.2 (Applicable Rules 403 and 402 Measures) and Mitigation Measure 4.8.1 (Construction General Permit) would be implemented to reduce potential significant impacts related to soil erosion to levels considered less than significant by reducing the

amount of fugitive dust and the transport of soil. With implementation of these mitigation measures, soil erosion potential related to construction activities would be reduced to less than significant levels.

Threshold 4.5.3: Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Landslides and Unstable Slopes.

Less than Significant Impact with Mitigation Incorporated. Landslides and other forms of mass wasting, including mud flows, debris flows, and soil slips occur as soil moves downslope under the influence of gravity. Landslides are frequently triggered by intense rainfall or seismic shaking. Because the site is located in a relatively flat area, landslides or other forms of natural slope instability do not represent a significant hazard to the Project. In addition, as stated above, the site is not within a State-designated hazard zone for Earthquake-Induced Landsliding. Therefore, potential impacts related to landslides would be less than significant, and no mitigation is required.

Although no indications of landslide activity or gross slope instability were observed at the Project site, grading activities during construction would produce temporary construction slopes in some areas. Unstable cut-and-fill slopes could create significant short-term and long-term hazards, and vertical or steeply sided trench excavations should not be attempted without proper shoring or bracings. All trench excavations should be braced and shored in accordance with good construction practice and all applicable safety ordinances and codes, as discussed in the *Preliminary Geotechnical Investigation*. Mitigation Measure 4.5.1 requires that planned grading and shoring conform with the recommendations of the *Preliminary Geotechnical Investigation*, which contains specific recommendations for addressing potential slope instability during construction. With implementation of these recommendations in accordance with Mitigation Measure 4.5.1, potential impacts related to slope instability during construction would be reduced to a less than significant level.

Lateral Spreading and Liquefaction.

Less than Significant Impact with Mitigation Incorporated. Damage from earthquakes may result from liquefaction, which occurs when loose, unconsolidated, water-laden soils are subject to shaking, causing the soils to lose cohesion, and the soil behaves as a fluid for a short period of time. Liquefaction is known generally to occur at depths shallower than 50 ft bgs.

As stated above, the Project site is located within a Liquefaction Hazard Zone as designated by CGS. The *Preliminary Geotechnical Report* (2014) concluded that the proposed Project would experience a high liquefaction or lateral spreading potential due to its location, historical high groundwater levels, and the presence of soil conditions common to liquefaction areas. As a result, the Project site and the development proposed for the Project site would be subject to impacts related to liquefaction of the on-site soils as a result of seismic shaking, and mitigation is required.

Mitigation Measure 4.5.1 requires the City to comply with the recommendations of the *Geotechnical Evaluations*, as well as the requirements of the City's Municipal Code (Title 18) and the CBC applicable at the time of grading. Mitigation Measure 4.5.1 also requires the City to review and approve a final geotechnical report prior to commencement of grading. Design measures that may be used to address liquefaction include, but are not limited to, ground modification (such as chemical or pressure grouting, dynamic compaction, geogrid-stabilized building pads, or dewatering) alternate foundation types (such as mats, caissons, or driven piles), or establishment of appropriate setbacks. Appropriate recommendations would be developed by the soils engineer and/or geotechnical consultant during preparation of the final geotechnical report. Compliance with applicable building codes and the incorporation of the design recommendations in the final geotechnical report into final design plans would reduce potential impacts related to liquefaction to a less than significant level. With implementation of Mitigation Measure 4.5.1, potential Project impacts related to liquefaction would be reduced to a less than significant level.

Assuming the soils between the site and the Pacific Ocean are similar to those beneath the site, the *Geotechnical Evaluations* determined that several feet of lateral spreading towards the Pacific Ocean could occur in the event of earthquake ground motions. The movement of the soils due to lateral spreading would not be expected to be uniform. Therefore, differential lateral spreading should be expected in the building area with the potential of seismically induced lateral spreading of approximately 9 to 80 inches to occur during an earthquake event. However, the *Geotechnical Evaluations* concluded that the proposed Project is feasible with implementation of the final engineering design recommendations and compliance with the most current CBC. Therefore, Mitigation Measure 4.5.1, requiring compliance with the recommendations contained in the *Geotechnical Evaluations* and the final geotechnical report would ensure that potential impacts related to lateral spreading are reduced to less than significant levels.

Subsidence.

Less than Significant Impact. Subsidence, the sinking of the land surface due to oil, gas, and water production, causes loss of pore pressure as the weight of the overburden compacts the underlying sediments. Subsidence began to occur in the City of Long Beach, which is over the Wilmington Oil Field, in the 1940s with the pumping of groundwater at the Terminal Island Naval Shipyard. By 1958, the affected area was 20 square miles and extended beyond the Harbor District. Total subsidence reached 29 ft in the center of the Subsidence Bowl. Water injection was begun in 1958 to repressurize the oil field and the area has been stabilized (MACTEC 2009) and, therefore, is not expected to result in subsidence on the Project site. As a result, subsidence-related impacts are considered to be less than significant, and no mitigation is required.

Corrosive Soils.

Less than Significant Impact with Mitigation Incorporated. Corrosive soils contain constituents or physical characteristics that attack concrete (water-soluble sulfates) and/or ferrous metals (chlorides, ammonia, nitrates, low pH levels, and low electrical resistivity). Corrosive soils could potentially create a significant hazard to the Project by weakening the structural integrity of

the concrete and metal used to construct the building and potentially lead to structural instability. Structural damage and foundation instability caused by corrosive soils are potentially significant impacts.

Laboratory testing indicates that on-site soils contain a negligible concentration of sulfates and severe concentrations of chlorides. Thus, the on-site soils should be considered severely corrosive to ferrous metals. Mitigation Measure 4.5.2 requires protection of ferrous metals and copper against corrosion. Corrosion protection may include, but is not limited to, sacrificial metal, the use of protective coatings, and/or cathodic protection. With implementation of Mitigation Measure 4.5.2, potential impacts related to corrosive soils would be reduced to a less than significant level.

Threshold 4.5.4: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?

Less than Significant Impact. Expansive soils are characterized by their ability to undergo substantial volume changes (shrink or swell) due to variations in moisture content as a result of precipitation, landscape irrigation, utility leakage, roof drainage, perched groundwater, drought, or other factors. Liquefaction may result in unacceptable settlement or heave of structures or concrete slabs supported on grade. The on-site granular soil depths of at least 8 ft are non-expansive while the underlying clay can be classified as having a moderate expansion potential based on the assessment of the soil classifications provided in the CPT logs and results of expansion index testing contained in the *Geotechnical Evaluations*. A non-expansive potential should, therefore, be assumed for planning purposes of the proposed structures. Impacts related to expansive soils would be less than significant, and no mitigation is required.

4.5.6 Cumulative Impacts

The cumulative study area for Geology and Soils is the Project site and the immediately adjacent properties that physically abut the Project site. The study area is essentially the area that could be affected by proposed Project activities and the areas affected by other projects for which activities could directly or indirectly affect the geology and soils of the proposed Project site. The Project site is in a fully built out area in which new development is infrequent. Any new development projects would also be required to meet similar engineering standards to reduce their own potential geologic impacts to a less than significant level. In addition, there are no other known activities or projects with activities that would affect the geology and soils at the Project site (e.g., projects requiring significant structural blasting or drilling, high vibration activities, or deep excavation).

As discussed above, there are no geotechnical conditions on site that would prohibit construction, and no activities associated with the Project that would contribute to any cumulative geological effects such as risk of ground failure, slope failure, or settlement problems in the Project vicinity. Implementation of Mitigation Measure 4.5.1 ensures that the proposed Project complies with recommendations in the *Geotechnical Evaluations* and Mitigation Measure 4.5.2 requires protection of ferrous metals and copper against corrosion; adherence to this measure would ensure that the Project would have a less than significant impact on Geology and Soils. Therefore, with

implementation of the proposed mitigation, the Project's geological impacts are considered less than cumulatively considerable.

4.5.7 Level of Significance Prior to Mitigation

The potential for surface fault rupture, subsidence, landslides, and subsidence is less than significant, and no mitigation is required. The potential impacts related to seismic ground shaking, soil erosion and loss of top soil, unstable slopes, lateral spreading, liquefaction, corrosive soil, and expansive soil would be potentially significant prior to mitigation.

4.5.8 Mitigation Measures

The *Geotechnical Evaluations* provide a number of recommendations for the final design and construction of the proposed Project, to address the potential geotechnical and soils concerns on the Project site and their potential effects on the development proposed on the Project site. Implementation of the following mitigation measure will ensure that potential geological and soil impacts resulting from Project implementation would be reduced to less than significant levels.

Mitigation Measure 4.5.1: Conformance with the Project Geotechnical Studies. All grading operations and construction shall be conducted in conformance with the recommendations included in the *Report of Preliminary Geotechnical Investigation for the Proposed Belmont Plaza Olympic Pool Revitalization Project*, prepared by MACTEC (April 14, 2009); the *Geotechnical Investigation for the Temporary Myrtha Pool and Associated Improvements, Belmont Plaza Revitalization*, prepared by GMU Geotechnical, Inc. (April 3, 2013); the *Preliminary Geotechnical Report for the Belmont Plaza Pool Rebuild-Revitalization* prepared by AESCO (April 24, 2014); and *Soil Corrosivity Evaluation for the Belmont Plaza Pool Facility Rebuild/Revitalization Project*, prepared by HDR Schiff (April 23, 2014), which together are referred to as the *Geotechnical Evaluations*. Design, grading, and construction shall be performed in accordance with the requirements of the City of Long Beach (City) Municipal Code (Title 18) and the California Building Code (CBC) applicable at the time of grading, appropriate local grading regulations, and the requirements of the Project geotechnical consultant as summarized in a final written report, subject to review and approval by the Development Services Director, or designee, prior to commencement of grading activities.

Specific requirements in the Final Geotechnical Report shall address:

1. Seismic design considerations and requirements for structures and nonstructural components permanently attached to structures
2. Foundations including ground improvements (deep soil mixing and stone columns) and shallow foundation design

3. Earthwork, including site preparation for structural areas (building pad) and sidewalks, pavements, and other flatwork areas; fill material; temporary excavations; and trench backfill
4. Liquefaction
5. Site drainage
6. Slabs-on-grade and pavements
7. Retaining walls

Additional site testing and final design evaluation shall be conducted by the Project geotechnical consultant to refine and enhance these requirements, if necessary. The City shall require the Project geotechnical consultant to assess whether the requirements in that report need to be modified or refined to address any changes in the Project features that occur prior to the start of grading. If the Project geotechnical consultant identifies modifications or refinements to the requirements, the City shall require appropriate changes to the final Project design and specifications.

Grading plan review shall also be conducted by the City's Development Services Director, or designee, prior to the start of grading to verify that the requirements developed during the geotechnical design evaluation have been appropriately incorporated into the Project plans. Design, grading, and construction shall be conducted in accordance with the specifications of the Project geotechnical consultant as summarized in a final report based on the CBC applicable at the time of grading and building and the City Building Code. On-site inspection during grading shall be conducted by the Project geotechnical consultant and the City Building Official to ensure compliance with geotechnical specifications as incorporated into Project plans.

Mitigation Measure 4.5.2:

Corrosive Soils. Prior to issuance of any building permits, the City of Long Beach (City) Development Services Director, or designee, shall verify that structural design conforms to the requirements of the geotechnical study with regard to the protection of ferrous metals and copper that will come into contact with on-site soil. In addition, on-site inspections shall be conducted during construction by the Project geotechnical consultant and/or City Building Official to ensure compliance with geotechnical specifications as incorporated into Project plans.

The measures specified in the geotechnical study for steel pipes, iron pipes, copper tubing, plastic and vitrified clay pipe, other pipes, concrete, post tensioning slabs, concrete piles, and steel piles shall be

incorporated into the structural design and Project plans where ferrous metals (e.g., iron or steel) and/or copper may come into contact with on-site soils.

4.5.9 Level of Significance after Mitigation

The potential impacts to the Project site and the development related to geotechnical and soil impacts would be reduced to below a level of significance based on implementation of Mitigation Measures 4.5.1 and 4.5.2, and Mitigation Measures 4.2.2, and 4.8.1, from the Air Quality section and the Hydrology and Water Quality section, respectively.

4.6 GLOBAL CLIMATE CHANGE

This section evaluates potential greenhouse gas (GHG) emissions impacts on global climate change associated with the proposed Belmont Pool Revitalization Project (proposed Project) and identifies mitigation measures recommended for potentially significant impacts. The following analysis is based on the GHG calculations conducted for the proposed Project that are provided in Appendix B.

Scoping Process

The City of Long Beach (City) distributed the first Notice of Preparation (NOP) for the Draft Environmental Impact Report (EIR) from April 18 to May 17, 2013. The City received three comment letters in response to the original NOP. No comments related to Greenhouse Gas emissions or Global Climate Change were received in response to the original NOP circulated for the proposed Project. Due to revisions in the Project Description, the City re-issued the NOP for the Draft EIR between April 9, 2014, and May 8, 2014. The City received five comment letters in response to the re-issued NOP during the public review period. No Greenhouse Gas emissions or Global Climate Change issues were raised in those comment letters.

4.6.1 Methodology

The recommended approach for GHG analysis included in the State of California Governor's Office of Planning and Research (OPR) June 2008 Technical Advisory is to: (1) identify and quantify GHG emissions, (2) assess the significance of the impact on climate change, and (3) if significant, identify alternatives and/or mitigation measures to reduce the impact to below a level of significance.¹ The June 2008 Technical Advisory provides some additional direction regarding planning documents as follows:

“CEQA can be a more effective tool for GHG emissions analysis and mitigation if it is supported and supplemented by sound development policies and practices that will reduce GHG emissions on a broad planning scale and that can provide the basis for a programmatic approach to project-specific CEQA analysis and mitigation.... For local government lead agencies, adoption of general plan policies and certification of general plan EIRs that analyze broad jurisdiction-wide impacts of GHG emissions can be part of an effective strategy for addressing cumulative impacts and for streamlining later project-specific CEQA reviews” (June 2008 Technical Advisory, pages 7-8).

Preliminary guidance from OPR² and recent letters from the Attorney General³ critical of California Environmental Quality Act (CEQA) documents that have taken different approaches

¹ State of California Governor's Office of Planning and Research (OPR). *Technical Advisory, CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act Review*. June 19, 2008.

² Ibid.

³ California Department of Justice. Website: <http://oag.ca.gov/environment/ceqa/letters> (accessed March 2016).

indicate that Lead Agencies should calculate, or estimate, emissions from vehicular traffic, energy consumption, water conveyance and treatment, waste generation, and construction activities.

The South Coast Air Quality Management District (SCAQMD) has also issued recommendations regarding the methodology to be used to analyze greenhouse gas impacts in environmental documents prepared pursuant to the California Environmental Quality Act (CEQA). In October 2008, SCAQMD released a *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* that suggested a tiered approach to project analysis. Figure 4.6.1 illustrates the tiered approach based on both the SCAQMD and the California Air Resources Board (ARB) suggested screening thresholds, used for this analysis.

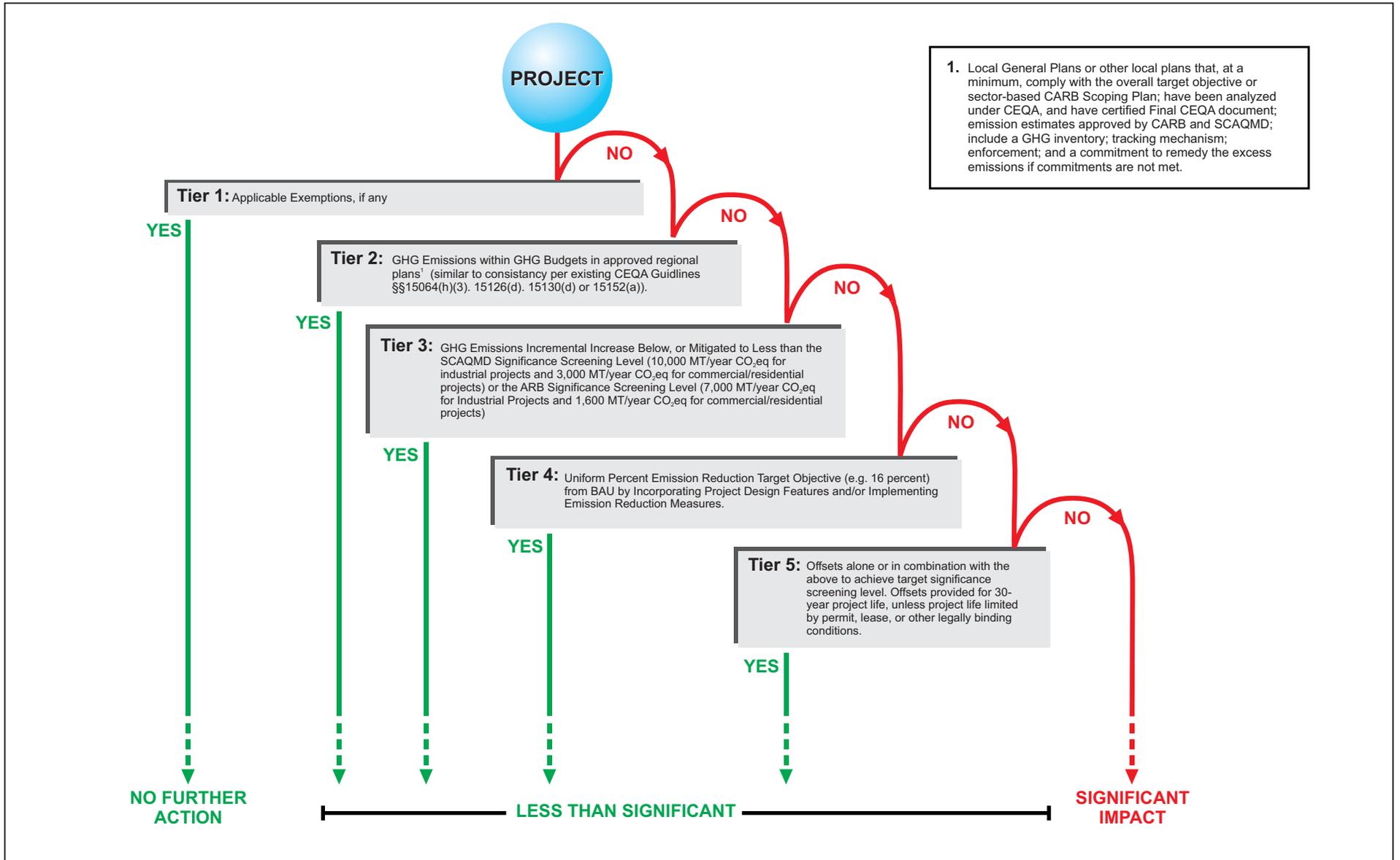
According to the tiered approach, if a project is exempt from CEQA, Tier 1 would be the most appropriate tier, and the project effects related to GHG emissions/global climate change (GCC) would be less than significant and the analysis would be complete. If the project is not exempt and there is a local GHG reduction plan in place, then Tier 2 would be the most appropriate tier. If the project is consistent with that plan, then the project effects related to GHG emissions/GCC would be less than significant and the analysis would be complete. If the project is not consistent with the plan, then the project would have a significant impact related to GHG emissions/GCC and the analysis would be complete. If there is no local GHG reduction plan, Tier 3 is used to screen smaller projects. Both the SCAQMD and the ARB screening thresholds categorize projects into two categories, “industrial” and “commercial/residential.” If the project emissions are less than the applicable numerical threshold (refer to Figure 4.6.1), then the project effects related to GHG emissions/GCC would be less than significant, and the analysis would be complete. If the project exceeds the numerical threshold, then the project should be analyzed using Tier 4.

If the project emissions would meet the applicable Tier 4 performance goal, then the project would have less than significant impacts related to GHG emissions/GCC, and the analysis would be complete. If the project exceeds the Tier 4 threshold, then the project would have a significant impact related to GHG emissions/GCC and the analysis would be complete.

Tier 5 is not a threshold, but rather specifies that a project include all feasible on- and off-site measures to reduce GHG emissions, as well as financially support independent projects that have a net reduction in GHG emissions.

4.6.2 Existing Environmental Setting

Global climate change is the observed increase in the average temperature of the Earth’s atmosphere and oceans along with other significant changes in climate (such as precipitation or wind) that last for an extended time period. The term “global climate change” is often used interchangeably with the term “global warming,” but “global climate change” is preferred to “global warming” because it helps convey that there are other changes in addition to rising temperatures. “Global climate change” refers to any change in measures of weather (such as temperature, precipitation, or wind) lasting for an extended period (decades or longer).



LSA

FIGURE 4.6.1

SOURCE: Adapted from SCAQMD's Draft Guidance Document - Interim CEQA Greenhouse Gas (GHG) Significance Threshold, October 2008.

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GCC may result from natural factors (e.g., changes in the sun's intensity), natural processes within the climate system (e.g., changes in ocean circulation), or human activities (e.g., the burning of fossil fuels, land clearing, or agriculture). The primary observed effect of GCC has been a rise in the average global tropospheric¹ temperature of 0.36 degree Fahrenheit (°F) per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling shows that further warming could occur, which would induce additional changes in the global climate system during the current century. Changes to the global climate system, ecosystems, and the environment of California could include higher sea levels, drier or wetter weather, changes in ocean salinity, and changes in wind patterns or more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and increased intensity of tropical cyclones. Specific effects in California might include a decline in the Sierra Nevada snowpack, erosion of California's coastline, and seawater intrusion in the Sacramento Delta.

Global surface temperatures have risen by 1.33°F ±0.32°F over the last 100 years (1906–2005). The rate of warming over the last 50 years is almost double that over the last 100 years.² The latest projections, based on state-of-the art climate models, indicate that temperatures in California are expected to rise 3–10.5°F by the end of the century.³ The prevailing scientific opinion on GCC is that “most of the warming observed over the last 60 years is attributable to human activities.”⁴ Increased amounts of carbon dioxide (CO₂) and other GHGs are the primary causes of the human-induced component of warming. The observed warming effect associated with the presence of GHGs in the atmosphere (from either natural or human sources) is often referred to as the greenhouse effect.⁵

GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced GCC include:⁶

- CO₂
- Methane (CH₄)
- Nitrous oxide (N₂O)

¹ The troposphere is the zone of the atmosphere characterized by water vapor, weather, winds, and decreasing temperature with increasing altitude.

² Intergovernmental Panel on Climate Change (IPCC), 2013. *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the IPCC.*

³ California Climate Change Center, 2006. *Our Changing Climate. Assessing the Risks to California.* July.

⁴ IPCC, *Climate Change 2013: The Physical Science Basis.* Website: <http://www.ipcc.ch> (accessed March 2016).

⁵ The temperature on Earth is regulated by a system commonly known as the “greenhouse effect.” Just as the glass in a greenhouse allows heat from sunlight in and reduces the amount of heat that escapes, greenhouse gases (GHG) like carbon dioxide, methane, and nitrous oxide in the atmosphere keep the Earth at a relatively even temperature. Without the greenhouse effect, the Earth would be a frozen globe; therefore, although an excess of greenhouse gas results in global warming, the *naturally occurring* greenhouse effect is necessary to keep our planet at a comfortable temperature.

⁶ The GHGs listed are consistent with the definition in Assembly Bill 32 (Government Code 38505), as discussed later in this section.

- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur Hexafluoride (SF₆)

Over the last 200 years, human activities have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, which some scientists believe can cause global warming. While GHGs produced by human activities include naturally occurring GHGs such as CO₂, CH₄, and N₂O, some gases, such as HFCs, PFCs, and SF₆, are completely new to the atmosphere. Certain other gases, such as water vapor, are short-lived in the atmosphere as compared to the GHGs that remain in the atmosphere for significant periods of time, contributing to GCC in the long term. Water vapor is generally excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation. For the purposes of this GCC evaluation, the term “GHGs” will refer collectively to the six gases identified in the bulleted list provided above.

These gases vary considerably in terms of global warming potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and the length of time that the gas remains in the atmosphere (“atmospheric lifetime”). The GWP of each gas is measured relative to CO₂, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO₂ over a specified time period. GHG emissions are typically measured in terms of metric tons (MT)¹ of “CO₂ equivalents” (CO₂e). Table 4.6.A shows the GWP for each type of GHG. For example, SF₆ is 23,900 times more potent at contributing to global warming than CO₂.

Table 4.6.A: Global Warming Potential of Greenhouse Gases

Gas	Atmospheric Lifetime (Years)	Global Warming Potential (100-year Time Horizon)
Carbon Dioxide (CO ₂)	~100	1
Methane (CH ₄)	12	28
Nitrous Oxide (N ₂ O)	121	265
HFC-23	264	11,700
HFC-134a	14.6	1,300
HFC-152a	1.5	140
PFC: Tetrafluoromethane (CF ₄)	50,000	6,500
PFC: Hexafluoromethane (C ₂ F ₆)	10,000	9,200
Sulfur Hexafluoride (SF ₆)	3,200	23,900

Source: Environmental Protection Agency (2016).

HFC = hydrofluorocarbons

PFC = perfluorocarbons

¹ A metric ton is equivalent to approximately 1.1 tons.

The following discussion summarizes the characteristics of the six primary GHGs.

Carbon Dioxide. In the atmosphere, carbon generally exists in its oxidized form as CO₂. Natural sources of CO₂ include the respiration (breathing) of humans, animals, and plants; volcanic outgassing; decomposition of organic matter; and evaporation from the oceans. Human-caused sources of CO₂ include the combustion of fossil fuels and wood, waste incineration, mineral production, and deforestation. The Earth maintains a natural carbon balance, and when concentrations of CO₂ are upset, the system gradually returns to its natural state through natural processes. Natural changes to the carbon cycle work slowly, especially compared to the rapid rate at which humans are adding CO₂ to the atmosphere. Natural removal processes, such as photosynthesis by land- and ocean-dwelling plant species, cannot keep pace with this extra input of human-made CO₂; consequently, the gas is building up in the atmosphere. The concentration of CO₂ in the atmosphere has risen approximately 30 percent since the late 1800s.¹

The transportation sector remained the largest source of GHG emissions in 2013, representing 37 percent of the State's GHG emission inventory. The largest emissions category within the transportation sector is on-road, which consists of passenger vehicles (cars, motorcycles, and light-duty trucks) and heavy-duty trucks and buses. Emissions from on-road sources constitute over 92 percent of the transportation sector total. Industry and electricity generation were California's second- and third-largest categories of GHG emissions, respectively.

Methane. CH₄ is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands, termites, and oceans. Anthropogenic sources include rice cultivation, livestock, landfills and waste treatment, biomass burning, and fossil fuel combustion (burning of coal, oil, and natural gas, etc.). Decomposition occurring in landfills accounts for the majority of human-generated CH₄ emissions in California, followed by enteric fermentation (emissions from the digestive processes of livestock).² Agricultural processes such as manure management and rice cultivation are also significant sources of human-made CH₄ in California. CH₄ accounted for approximately 8 percent of gross climate change emissions (CO₂e) in California in 2012.³ It is estimated that over 60 percent of global methane emissions are related to human-related activities.⁴ As with CO₂, the major removal process of atmospheric CH₄—a chemical breakdown in the atmosphere—cannot keep pace with source emissions, and CH₄ concentrations in the atmosphere are increasing.

¹ California Environmental Protection Agency (CalEPA). 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. March.

² California Air Resources Board (ARB), GHG Inventory Data – 2000 to 2013. Website: <http://www.arb.ca.gov/cc/inventory/data/data.htm> (accessed March 2016).

³ Ibid.

⁴ IPCC, 2007. *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the IPCC*.

Nitrous Oxide. N₂O is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for the majority of natural source emissions. N₂O is a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion emit N₂O, and the quantity emitted varies according to the type of fuel, technology, and pollution control device used, as well as maintenance and operating practices. Agricultural soil management and fossil fuel combustion are the primary sources of human-generated N₂O emissions in California.

Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride. HFCs are primarily used as substitutes for ozone (O₃) depleting substances regulated under the Montreal Protocol.¹ PFCs and SF₆ are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric power transmission and distribution, and magnesium casting. There is no aluminum or magnesium production in California; however, the rapid growth in the semiconductor industry, which is active in California, leads to greater use of PFCs. However, there are no known project-related emissions of these three GHGs; therefore, these substances are not discussed further in this analysis.

Effects of Global Climate Change. Effects from GCC may arise from temperature increases, climate-sensitive diseases, extreme weather events, and air quality. There may be direct temperature effects through increases in average temperature leading to more extreme heat waves and less extreme cold spells. Those living in warmer climates are likely to experience more stress and heat-related problems. Heat-related problems include heat rash and heat stroke. In addition, climate-sensitive diseases may increase, such as those spread by mosquitoes and other disease-carrying insects. Such diseases include malaria, dengue fever, yellow fever, and encephalitis. Extreme events such as flooding and hurricanes can displace people and agriculture. Global warming may also contribute to air quality problems from increased frequency of smog and particulate air pollution.

Additionally, according to the 2006 California Climate Action Team (CAT) Report,² the following climate change effects, which are based on trends established by the United Nations Intergovernmental Panel on Climate Change (IPCC), can be expected in California over the course of the next century:

- The loss of sea ice and mountain snow pack, resulting in higher sea levels and higher sea surface evaporation rates with a corresponding increase in tropospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures.³

¹ The Montreal Protocol is an international treaty that was approved on January 1, 1989, and was designated to protect the ozone layer by phasing out the production of several groups of halogenated hydrocarbons believed to be responsible for ozone depletion.

² CalEPA. 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*, March.

³ Ibid.

- Rise in global average sea level, primarily due to thermal expansion and melting of glaciers and ice caps in the Greenland and Antarctic ice sheets.¹
- Changes in weather that include widespread changes in precipitation, ocean salinity, and wind patterns, and more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones.²
- Decline of the Sierra snowpack, which accounts for approximately half of the surface water storage in California by 70 percent to as much as 90 percent over the next 100 years.³
- Increase in the number of days conducive to O₃ formation by 25–85 percent (depending on the future temperature scenario) in high O₃ areas of Los Angeles and the San Joaquin Valley by the end of the 21st century.⁴
- High potential for erosion of California’s coastlines and seawater intrusion into the Delta and levee systems due to the rise in sea level.⁵

A summary of these potential effects are identified in Table 4.6.B, Potential Impacts of Global Warming and Expected Consequences for California. Rising ocean levels, more intense coastal storms, and warmer water temperatures may increasingly threaten the Los Angeles coastal region. As previously described, global surface temperatures have increased by .33°F ±0.32°F over the last 100 years (1906–2005), with temperatures anticipated to rise in California by 3 to 10.5°F by the end of the century. Under this higher warming scenario, it is anticipated that ocean levels will rise 17 to 66 inches in Los Angeles by 2100.⁶

Rising sea levels may affect the natural environment in the coming decades by eroding beaches, converting wetlands to open water, exacerbating coastal flooding, and increasing the salinity of estuaries and freshwater aquifers. Coastal headlands and beaches are expected to erode at a faster pace in response to future sea level rise. The California Coastal Commission estimates that 450,000 acres of wetlands exist along the California coast,⁷ but additional work is needed to evaluate the extent to which these wetlands would be degraded over time, or to what extent new wetland habitat would be created if those lands are protected from further development.

¹ CalEPA. 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. March.

² IPCC, *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*, February 2007.

³ Ibid.

⁴ Ibid.

⁵ Ibid.

⁶ CCC Sea Level Rise Policy Guidance, Appendix A: Sea Level Rise Science and Projections for Future Change, adopted August 12, 2015.

⁷ CCC Procedural Guidance for the Review of Wetland Projects in California’s Coastal Zone. Website: <http://www.coastal.ca.gov/wetrev/wetch4.html> (accessed February 2015).

Table 4.6.B: Potential Impacts of Global Warming and Expected Consequences for California

Potential Water Resource Impacts	Anticipated Consequences Statewide
Reduction of the State’s average annual snowpack	<ul style="list-style-type: none"> • Specifically, the decline of the Sierra snowpack, would lead to a loss in half of the surface water storage in California by 70 to 90% over the next 100 years • Potential loss of 5 million acre-feet or more of average annual water storage in the State’s snowpack • Increased challenges for reservoir management and balancing the competing concerns of flood protection and water supply • Higher surface evaporation rates with a corresponding increase in tropospheric water vapor
Rise in average sea level	<ul style="list-style-type: none"> • Potential economic impacts related to coastal tourism, commercial fisheries, coastal agriculture, and ports • Increased risk of flooding, coastal erosion along the State’s coastline, seawater intrusion into the Delta and levee systems
Changes in weather	<ul style="list-style-type: none"> • Changes in precipitation, ocean salinity, wind patterns • Increased likelihood for extreme weather events, including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones
Changes in the timing, intensity, location, amount, and variability of precipitation	<ul style="list-style-type: none"> • Potential increased storm intensity and increased potential for flooding • Possible increased potential for droughts • Long-term changes in vegetation and increased incidence of wildfires • Changes in the intensity and timing of runoff • Possible increased incidence of flooding and increased sedimentation • Sea level rise and inundation of coastal marshes and estuaries • Increased salinity intrusion into the Sacramento-San Joaquin River Delta (Delta) • Increased potential for Delta levee failure • Increased potential for salinity intrusion into coastal aquifers (groundwater) • Increased potential for flooding near the mouths of rivers due to backwater effects
Increased water temperatures	<ul style="list-style-type: none"> • Increased environmental water demand for temperature control • Possible increased problems with foreign invasive species in aquatic ecosystems • Potential adverse changes in water quality, including the reduction of dissolved oxygen levels • Possible critical effects on listed and endangered aquatic species

Table 4.6.B: Potential Impacts of Global Warming and Expected Consequences for California

Potential Water Resource Impacts	Anticipated Consequences Statewide
Changes in urban and agricultural water demand	<ul style="list-style-type: none"> • Changes in demand patterns and evapotranspiration
Increase in the number of days conducive to O ₃ formation	<ul style="list-style-type: none"> • Increased temperatures • Potential health effects, including adverse impacts to respiratory systems

Source: Environmental Water Account Draft Supplemental EIS/EIR to the Environmental Water Account Final EIS/EIR, October 2007, US Department of the Interior, Bureau of Reclamation Mid-Pacific Region, Sacramento, California.
 EIR = Environmental Impact Report
 EIS = Environmental Impact Statement
 O₃ = ozone

Cumulatively, the effects of sea level rise may be combined with other potential long-term factors such as changes in sediment input and nutrient runoff. The cumulative impacts of physical and biological change due to sea level rise on the quality and quantity of coastal habitats are not well understood.¹

Sea level along the US west coast is affected by a number of factors, including climate patterns such as El Niño, effects from the melting of modern and ancient ice sheets, and geologic processes such as plate tectonics. Regional projections for California, Oregon, and Washington show a sharp distinction at Cape Mendocino in northern California. South of that point, sea-level rise is expected to be very close to global projections. Projections are lower north of Cape Mendocino because the land is being pushed upward as the ocean plate moves under the continental plate along the Cascadia Subduction Zone.

According to the National Research Council’s (NRC) June 2012 report on *Sea Level Rise for the Coasts of California, Oregon, and Washington*, sea level rise will cause many harmful economic, ecological, physical and social impacts but incorporating sea level rise impacts into agency decisions can help mitigate some of these potential impacts. A *Wave Uprush Study* (Moffatt & Nichols, October 2014) was prepared for the site, which among other things, analyzed the proposed Project’s vulnerability to rising sea levels. According to the *Wave Uprush Study*, the following ranges of sea level rise were utilized in analyzing potential impacts related to sea level rise. Accordingly, Table 4.6.C presents the sea level rise projections based on the NRC report on sea level rise.

¹ Climate Change Science Program (CCSP) 4.1 January 15, 2009, 1 of 784 Final Report, United States CCSP, Synthesis and Assessment Product 4.1. Coastal Sensitivity to Seal Level Rise: A Focus on the Mid-Atlantic Region. Lead Agency: US Environmental Protection Agency, Other Key Participating Agencies: US Geological Survey, National Oceanic and Atmospheric Administration. Contributing Agencies: Department of Transportation.

Table 4.6.C: Sea-Level Rise Projections at the Project Site

Time Period	Sea Level Rise
2014	0 ft
2060	0.5 to 2.6 ft
2100	1.4 to 5.5 ft

Source: Moffat & Nichol, *Wave Uprush Study* (October 2014).

cm = centimeters

ft = foot/feet

Rising sea levels may also affect the built environment, including coastal development such as buildings, roads, and infrastructure. The project site is a relatively flat, low-lying, developed coastal site that may be directly affected by the change in sea level resulting from GCC. The elevation of the project site is essentially at sea level (0.5 to 4.0 ft above mean sea level [amsl]), and therefore, the rising of the ocean levels could result in on-site flood conditions.

Emissions Sources and Inventories. An emissions inventory that identifies and quantifies the primary human-generated sources and sinks of GHGs is a well-recognized and useful tool for addressing GCC. This section summarizes the latest information on global, national, California, and local GHG emission inventories. However, because GHGs persist for a long time in the atmosphere (see Table 4.6.A), accumulate over time, and are generally well-mixed, their impact on the atmosphere and climate cannot be tied to a specific point of emission.

Global Emissions. Worldwide emissions of greenhouse gases in 2012 totaled 29 billion MT of CO₂e per year.¹ Global estimates are based on country inventories developed as part of the programs of the United Nations Framework Convention on Climate Change (UNFCCC).

United States Emissions. In 2014, the United States emitted approximately 6.9 billion MT of CO₂e, down from 7.4 billion MT in 2009. Of the six major sectors nationwide—the electric power industry, transportation, industry, agriculture, commercial, and residential—the electric power industry and transportation sectors combined accounted for approximately 70 percent of the GHG emissions; the majority of the electric power industry and all of the transportation emissions were generated from direct fossil fuel combustion. In 2014, the total United States GHG emissions were approximately 9 percent less than 2005 levels.²

¹ United Nations. *Greenhouse Gas Emissions*. Website: http://unstats.un.org/unsd/environment/air_greenhouse_emissions.htm (accessed March 2016).

² United States Environmental Protection Agency (EPA). *Draft Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2014*. Website: <http://www.epa.gov/climatechange/ghgemissions/usinventoryreport.html> (accessed March 2016).

State of California Emissions. According to ARB emission inventory estimates, the State emitted approximately 459 million metric tons (MMT) of CO₂e emissions in 2013. This is a decrease of 1.5 MMT of CO₂e from 2012 and a 7 percent decrease since 2004.¹

The ARB estimates that transportation was the source of approximately 37 percent of the State's GHG emissions in 2013, followed by electricity generation (both in-State and out-of-State) at 20 percent and industrial sources at 20 percent. The remaining sources of GHG emissions were residential and commercial activities at 9 percent, agriculture at 8 percent, high-GWP gases at 4 percent, and recycling and waste at 2 percent.²

The ARB is responsible for developing the State GHG Emission Inventory. This inventory estimates the amount of GHGs emitted to and removed from the atmosphere by human activities within the State and supports the AB 32 Climate Change Program. The ARB's current GHG emission inventory covers the years 2000–2013 and is based on fuel use, equipment activity, industrial processes, and other relevant data (e.g., housing, landfill activity, agricultural lands).³

The ARB staff has projected statewide unregulated GHG emissions for 2020, which represent the emissions that would be expected to occur in the absence of any GHG reduction actions, at 509 MMT of CO₂e. GHG emissions from the transportation and electricity sectors as a whole are expected to increase, but remain at approximately 30 percent and 32 percent of total CO₂e emissions, respectively.

Regional Emissions. Existing GHG emissions for the Southern California Association of Governments (SCAG) region were calculated for construction sources, mobile sources, natural gas consumption, and electricity generation. GHG emissions for 2010 were estimated to be approximately 224.6 MMT of CO₂e. Transportation and energy (i.e., electricity use and natural gas consumption) accounted for approximately 47 and 52 percent of emissions, respectively. Construction activity accounted for approximately 1 percent of the GHG emissions.

4.6.3 Regulatory Setting

Federal Policies and Regulations. The United States has historically had a voluntary approach to reducing GHG emissions. However, on December 7, 2009, the EPA issued an “endangerment finding” under the CAA, concluding that GHGs threaten the public health and welfare of current and future generations and that motor vehicles contribute to greenhouse gas pollution.⁴ These findings provided the basis for adopting new national regulations to mandate GHG emission

¹ ARB. 2015. California Greenhouse Gas Emission Inventory – 2015 Edition. Website: <http://www.arb.ca.gov/cc/inventory/data/data.htm>.

² Ibid.

³ ARB. 2015. California Greenhouse Gas Inventory Data - 2015 Edition. Website: <http://www.arb.ca.gov/cc/inventory/data/data.htm> (accessed March 2016).

⁴ EPA. 2009. *Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act*. August 9. Website: <http://www.epa.gov/climatechange/endangerment> (accessed April 2015).

reductions under the federal CAA. The EPA's endangerment finding paved the way for federal regulation of GHGs.

On April 1, 2010, the EPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) announced a final joint rule to establish a national program consisting of new standards for model year 2012–2016 light-duty vehicles that would reduce GHG emissions and improve fuel economy. The EPA and NHTSA issued a Supplemental Notice of Intent¹ announcing plans to propose stringent, coordinated federal GHG and fuel economy standards for model year 2017–2025 light-duty vehicles. The agencies proposed standards projected to achieve 163 grams of CO₂ per mile in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. California has announced its support of this national program.² The final rule was adopted in October 2012, and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking.³ The GHG benefit of federal vehicle standards is not directly quantified in this report because the more stringent California vehicle standards discussed later in this section are quantified in the report.

In addition to the regulations applicable to cars and light-duty trucks, on August 9, 2011, the EPA and the NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks, which apply to vehicles from model years 2014–2018 (EPA 2011).⁴ The EPA and the NHTSA have adopted standards for CO₂ emissions and fuel consumption, respectively, tailored to each of three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the EPA, this program will reduce GHG emissions and fuel consumption for affected vehicles by 9 percent to 23 percent. This EIR conservatively did not incorporate the GHG benefit of this federal standard.

State Policies, Regulations, and Standards.

2010 Climate Action Team Report – California Climate Action Milestones. In 1988, Assembly Bill (AB) 4420 directed the California Energy Commission (CEC) to report on “how global warming trends may affect California’s energy supply and demand, economy, environment, agriculture, and water supplies” and offer “recommendations for avoiding, reducing and addressing the impacts.” This marked the first statutory direction to a California State agency to address climate change.

¹ United States Government Publishing Office (GPO). 2011. Federal Register, Vol. 76, No. 153, Proposed Rules, 2017–2025 Model Year Light-Duty Vehicle GHG Emissions and CAFE Standards: Supplemental Notice of Intent. August 9. Website: <http://gpo.gov/fdsys/pkg/FR-2011-08-09/pdf/2011-19905.pdf>.

² EPA. 2011a. Commitment Letter to National Program, July 28, 2011. Website: <http://www.epa.gov/otaq/climate/letters/carb-commitment-ltr.pdf> (accessed September 2015).

³ National Highway Traffic Safety Administration (NHTSA). 2012. Corporate Average Fuel Economy Standards, Passenger Cars and Light Trucks, Model Years 2017-2025, Final Environmental Impact Statement, July 2012. Website: http://www.nhtsa.gov/staticfiles/rulemaking/pdf/cale/FINAL_EIS.pdf (accessed September 2015).

⁴ EPA. 2011b. Office of Transportation and Air Quality, EPA and NHTSA Adopt First-Ever Program to Reduce Greenhouse Gas Emissions and Improve Fuel Efficiency of Medium-and Heavy-Duty Vehicles. August. Website: <http://www.epa.gov/otaq/climate/documents/420f11031.pdf>.

The California Climate Action Registry was created to encourage voluntary reporting and early reductions of GHG emissions with the adoption of Senate Bill (SB) 1771 in 2000. The CEC was directed to assist by developing metrics and identifying and qualifying third-party organizations to provide technical assistance and advice to GHG emission reporters. The next year, SB 527 amended SB 1771 to emphasize third-party verification.

SB 1711 also contained several additional requirements for the CEC, including updating the State's Greenhouse Gas Emissions Inventory from an existing 1998 report and continuing to update it every 5 years; acquiring, developing and distributing information on global climate change to agencies and businesses; establishing a State interagency task force to ensure policy coordination; and establishing a climate change advisory committee to make recommendations on the most equitable and efficient ways to implement climate change requirements. In 2006, AB 1803 transferred preparation of the inventory from the CEC to the ARB. The ARB updates the inventory annually.

AB 1493, authored by Assembly Member Fran Pavley in 2002, directed the ARB to adopt regulations to achieve the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles. The so-called "Pavley" regulations, or Clean Car regulations, were approved by the ARB in 2004. The ARB submitted a request to the EPA to implement the regulations in December 2005. After several years of requests to the federal government and accompanying litigation, this waiver request was granted on June 30, 2009. The ARB has since combined the control of smog-causing pollutants and GHG emissions to develop a single coordinated package of standards known as Low Emission Vehicles III. It is expected that these regulations will reduce GHG emissions from California passenger vehicles by approximately 22 percent in 2012 and approximately 30 percent in 2016, all while improving fuel efficiency and reducing motorists' costs. AB 1493 also directed the California Climate Action Registry to adopt protocols for reporting reductions in GHG emissions from mobile sources prior to the operative date of the regulations.

SB 812 added forest management practices to the California Climate Action Registry members' reportable emissions actions. It also directed the Registry to adopt forestry procedures and protocols to monitor, estimate, calculate, report, and certify carbon stores and CO₂ emissions that resulted from the conservation and conservation-based management of forests in California.

The California Renewable Portfolio Standard (RPS) Program, which requires electric utilities and other entities under the jurisdiction of the California Public Utilities Commission to meet 20 percent of its retail sales with renewable power by 2017, was established by SB 1078 in 2002. The RPS was accelerated to 20 percent by 2010 by SB 107 in 2006. The program was subsequently expanded by the renewable electricity standard approved by the ARB in September 2010, requiring all utilities to meet a 33 percent target by 2020. The renewable electricity standard is projected to reduce GHG emissions from the electricity sector by at least 12 MMT of CO₂e in 2020.

In December 2004, Governor Arnold Schwarzenegger signed Executive Order (EO) S-20-04, which set a goal of reducing energy use in State-owned buildings by 20 percent by 2015 (from a 2003 baseline) and encouraged cities, counties, schools, and the private sector to take all cost-effective measures to reduce building electricity use. This action built upon the State's strong

history of energy efficiency efforts that have saved Californians and California businesses energy and money for decades. They are a cornerstone of GHG reduction efforts.

EO S-3-05 (June 2005) established GHG targets for the State, such as returning to year 2000 emission levels by 2010; to 1990 levels by 2020; and to 80 percent below 1990 levels by 2050. It directed the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate efforts to meet the targets with the heads of other State agencies. This group became the Climate Action Team (CAT).

California's Million Solar Roofs plan was boosted by the passage of SB 1 in 2006. The plan is estimated to result in 3,000 megawatts of new electricity-generating capacity and avoidance of 2.1 MMT of CO₂e emissions. The main components of the bill included expanding the program to more customers, requiring the State's municipal utilities to create their own solar rebate programs, and making solar panels a standard option on new homes.

The California Global Warming Solutions Act of 2006, best known by its bill number AB 32, created a first-in-the-country comprehensive program to achieve real, quantifiable, and cost-effective reductions in GHGs. The law set an economy-wide cap on California GHG emissions at 1990 levels by 2020. It directed the ARB to prepare, approve, and implement a Scoping Plan for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions. EO S-20-06, signed in October 2006, directed the Secretary for Environmental Protection to establish a Market Advisory Committee of national and international experts. The committee made recommendations to the ARB on the design of a market-based program for GHG emissions reduction. The ARB adopted the first Scoping Plan, describing a portfolio of measures to achieve the target, in December 2008. All of the major regulatory measures necessary for meeting the 2020 emissions target were adopted by December 2010.

The Governors of California, Arizona, New Mexico, Oregon, and Washington entered into a Memorandum of Understanding in February 2007, establishing the Western Climate Initiative. The Governors agreed to set a regional goal for emissions reductions consistent with state-by-state goals; develop a design for a regional market-based, multisector mechanism to achieve the goal; and participate in a multistate GHG registry. The initiative has since grown to include Montana, Utah, and the Canadian provinces of British Columbia, Manitoba, Ontario, and Québec.

California is implementing the world's first Low Carbon Fuel Standard for transportation fuels, pursuant to both EO S-01-07 (signed January 2007) and AB 32. The standard requires a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020. This reduction is expected to reduce GHG emissions in 2020 by 17.6 MMT of CO₂e. Also in 2007, AB 118 created the Alternative and Renewable Fuel and Vehicle Technology Program. The CEC and the ARB administer the program. This act provides funding for alternative fuel and vehicle technology research, development, and deployment in order to attain the State's climate change goals, achieve the State's petroleum reduction objectives and clean air and GHG emission reduction standards, develop public-private partnerships, and ensure a secure and reliable fuel supply.

In addition to vehicle emissions regulations and the Low Carbon Fuel Standard, the third effort reducing GHG emissions from transportation is the reduction in the demand for personal vehicle

travel (i.e., vehicle miles traveled, or VMT). This measure was addressed in September 2008 through the Sustainable Communities and Climate Protection Act of 2008, or SB 375. The enactment of SB 375 initiated an important new regional land use planning process to mitigate GHG emissions by integrating and aligning planning for housing, land use, and transportation for California's 18 Metropolitan Planning Organizations (MPOs). The bill directed the ARB to set regional GHG emissions reduction targets for most areas of the State. It also contained important elements related to federally mandated Regional Transportation Plans (RTPs) and the alignment of State transportation and housing planning processes.

Also codified in 2008, SB 97 required the Governor's Office of Planning and Research (OPR) to develop GHG emissions criteria for use in determining project impacts under CEQA. These criteria were developed in 2009 and went into effect in 2010.

EO S-13-08 launched a major initiative for improving the State's adaptation to climate impacts from sea level rise, increased temperatures, shifting precipitation, and extreme weather events. It ordered a California Sea Level Rise Assessment Report to be requested from the National Academy of Sciences. It also ordered the development of a Climate Adaptation Strategy. The strategy, published in December 2009, assesses the State's vulnerability to climate change impacts and outlines possible solutions that can be implemented within and across State agencies to promote resiliency. The strategy focused on seven areas: public health, biodiversity and habitat, ocean and coastal resources, water management, agriculture, forestry, and transportation and energy infrastructure.

On October 28, 2010, ARB released its proposed cap-and-trade regulations, which would cover sources of approximately 85 percent of California's GHG emissions.¹ ARB's Board ordered ARB's Executive Director to prepare a final regulatory package for cap-and-trade on December 16, 2010.² On January 1, 2011, the ARB adopted GHG emissions limits and reduction measures by regulation. On January 1, 2015, cap-and-trade compliance obligations were phased in for suppliers of natural gas, reformulated gasoline blendstock for oxygenate blending, distillate fuel oils, and liquefied petroleum gas, requiring emissions that meet or exceed specified emissions thresholds.

On October 1, 2013, ARB released an update to the Scoping Plan for discussion purposes. On February 10, 2014, ARB released its proposed First Update to the Climate Change Scoping Plan ("Updated Scoping Plan").³ Finally, on May 22, 2014, ARB approved the Updated Scoping Plan. It describes California's progress towards AB 32 goals, stating that "California is on track to meet the near-term 2020 greenhouse gas limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32." Specifically, "if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts [MW] of renewable distributed

¹ ARB. 2010a. Proposed Regulation to Implement the California Cap-and-Trade Program, December 16, 2010. Website: <http://www.arb.ca.gov/regact/2010/capandtrade10/capandtrade10.htm> (accessed September 2015).

² ARB. 2010b. California Cap-and-Trade Program, Resolution 10-42, December 16, 2010. Website: <http://www.arb.ca.gov/regact/2010/capandtrade10/res1042.pdf> (accessed September 2015).

³ ARB. 2014b. First Update to the Climate Change Scoping Plan: Building on the Framework. Pursuant to AB 32, the California Global Warming Solutions Act of 2006. May. Website: http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf.

generation by 2020, net zero energy homes after 2020, existing building retrofits under AB 758, and others), it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80 percent below 1990 levels by 2050.”¹

In addition, the Updated Scoping Plan further reduced the GHG emissions reduction target. It recalculated 1990 GHG emissions levels using the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4).² Using the AR4 GWP, the 427 MMT of CO₂e 1990 emissions levels and 2020 GHG emissions limits would be slightly higher, at 431 MMT of CO₂e.³ Based on the revised estimates of expected 2020 emissions identified in the 2011 supplement to the Functional Environmental Document and updated 1990 emissions levels identified in the Updated Scoping Plan, achieving the 1990 emission level would require a reduction of 78 MMT of CO₂e, which equates to a reduction of approximately 15.3 percent to achieve in 2020 emissions levels in the business-as-usual condition.⁴ Thus, the Updated Scoping Plan essentially establishes a 15.3 percent reduction from the business-as-usual threshold of significance for measuring potential GHG impacts.

On April 29, 2015, Governor Edmund G. Brown, Jr. issued an executive order to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. The Governor’s executive order aligns California’s GHG reduction targets with those of leading international governments ahead of the 2015 United Nations Climate Change Conference in Paris. The executive order sets a new interim statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 in order to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050 and directs the ARB to update the Climate Change Scoping Plan to express the 2030 target in terms of MMT of CO₂e. The executive order also requires the State’s climate adaptation plan to be updated every 3 years and for the State to continue its climate change research program, among other provisions. As with EO S-3-05, this executive order is not legally enforceable against local governments and the private sector. Legislation that would update AB 32 to make post 2020 targets and requirements a mandate is currently in process in the State Legislature.

The initiatives, EOs, and statutes outlined above represent the major milestones in California’s efforts to address climate change through coordinated action on climate research, GHG mitigation, and climate change adaptation. Numerous additional related efforts have been undertaken by State agencies and departments to address specific questions and programmatic needs. The CAT coordinates these efforts and others that compose the State’s climate program. The rest of the report describes these efforts.

¹ ARB. 2014. First Update to the Climate Change Scoping Plan: Building on the Framework. Pursuant to AB 32, the California Global Warming Solutions Act of 2006. May. Website: http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf (accessed March 2015).

² The GWP of CH₄ was updated to 25 (from previously 21) and that of N₂O was updated to 298 (from previously 310).

³ Op. Cit. ARB. 2014.

⁴ ARB. 2011. Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document, released August 19, 2011. Website: http://www.arb.ca.gov/cc/scopingplan/document/final_supplement_to_sp_fed.pdf (accessed September 2015).

Local Policies and Regulations.

City of Long Beach Air Quality Element. In December of 1996, the City adopted the Air Quality Element (1996) as part of the City's General Plan. This element includes goals and polices related and intended to promote clean air within the City. The following goals and policies are applicable to the proposed Project:

Goal 7.0: Reduce emissions through reduced energy consumption.

Policy 7.1: Reduce energy consumption through conservation improvements and requirements.

Action 7.1.4: Encourage the incorporation of energy conservation features in the design of all new construction.

Action 7.1.7: Support efforts to reduce GHGs emissions that diminish the stratospheric ozone layer.

City of Long Beach Sustainable City Action Plan. The City adopted the Long Beach Sustainable City Action Plan on February 2, 2019. This plan serves as a guide for planners and decision-makers in the City to implement measurable goals and actions established for the purpose of creating a more sustainable City. The following sustainability goals and actions relevant to the proposed Project are:

Goal 5: Reduce community electricity use by 15 percent by 2020.

Action: Encourage the use of energy efficient products including efficient lighting, energy monitoring systems, cool and green roofs, insulation and efficient HVAC systems.

Goal 6: Reduce community natural gas use by 10 percent by 2020.

Action: Require that private development projects incorporate Green Building Requirements for Private Development and encourage development projects to exceed Title 24 standards.

4.6.4 Impact Significance Criteria

The following thresholds of significance criteria are based on Appendix G of the *State CEQA Guidelines*. Based on these thresholds, implementation of the proposed Project would have a significant adverse impact related to global climate change if it would:

Threshold 4.6.1: **Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or**

Threshold 4.6.2: **Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.**

The *State CEQA Guidelines* leave the determination of significance to the reasonable discretion of the lead agency and encourage lead agencies to develop and publish thresholds of significance for use in determining the significance of environmental effects in CEQA documents. As discussed above, neither SCAQMD nor the City of Long Beach has yet established specific quantitative significance thresholds for GHG emissions for residential or commercial projects. Therefore, consistent with the SCAQMD's tiered approach described in Section 4.6.1, above, the proposed Project will be analyzed using the Tier 3 screening thresholds, as follows:

- 10,000 MT of CO₂e per year for industrial projects
- 3,000 MT of CO₂e per year for commercial/residential projects

Until more guidance is provided from federal or State agencies, the City defers to the recommended screening significance criteria level for commercial/residential projects to be 3,000 MT of CO₂e per year. However, given the frequency of changes in regulations over GHG emissions, this standard should be recognized as interim and will likely change over time as further guidance is provided by federal or State regulatory agencies.

CEQA Baseline. At the time the NOP was issued, the Project site contained both the Belmont Pool facilities and the outdoor temporary pool (opened in December 2013 to provide swimming facilities while the permanent facility was under construction). Although the site contained the former Belmont Pool building at the time of the NOP, the facility was subsequently demolished in February 2015 to alleviate an imminent public safety threat due to the seismically unsafe condition of the building.

The inclusion of the former pool building in the assessment of global climate change impacts is appropriate because the former facility was present on the site for approximately 45 years and represents the historic uses of the site, and the historic GHG conditions of the site. The substantial evidence of recent historical use supports the determination that utilization of the Belmont Pool building as the baseline for global climate change impacts is appropriate.

4.6.5 Project Impacts

Construction and operation of the proposed Project would generate GHG emissions, with most energy consumption (and associated generation of GHG emissions) occurring during the proposed Project's operation (as opposed to its construction). Typically, more than 80 percent of the total energy consumption takes place during the use of buildings, and less than 20 percent is consumed during construction.¹

GHG emissions generated by the proposed Project would predominantly consist of CO₂. In comparison to criteria air pollutants such as O₃ and particulate matter less than 10 microns in diameter (PM₁₀), CO₂ emissions persist in the atmosphere for a substantially longer period of time.

¹ United Nations Environment Programme (UNEP). 2007. *Buildings and Climate Change: Status, Challenges and Opportunities*, Paris, France.

Construction. During construction of the proposed Project, GHGs would be emitted through the operation of construction equipment and from worker and vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO₂, CH₄, and N₂O. Furthermore, CH₄ is emitted during the fueling of heavy equipment. Construction activities produce combustion emissions from various sources such as site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, asphalt paving, and motor vehicles transporting the construction crew. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

Per SCAQMD guidance, due to the long-term nature of the GHGs in the atmosphere, instead of determining significance of construction emissions alone, the total construction emissions are amortized over 30 years (an estimate of the life of the project) and included in the operations analysis provided in the next section, Operation.

Operation. Long-term operation of the proposed Project would generate GHG emissions from area and mobile sources and indirect emissions from stationary sources associated with energy consumption. As discussed in Chapter 3.0, Project Description, the proposed Project would be built to meet Leadership in Energy and Environmental Design (LEED) Gold certification standards. Although not all proposed design features have been selected, the City has committed to implement the following pool components to assist in reaching the LEED certification by reducing water and energy consumption:

- **Aquatic-Specific Variable Frequency Drives on Pumps.** The aquatic-specific pumps are in constant communication with the filtration system and chemical controller to provide the optimum electrical frequency to the pump, constantly maintaining the pump at its premium efficiency and reducing energy consumption by as much as 30 percent.
- **Filtration.** Regenerative Media System: A single tank utilizing a Regenerative Media Filter System (RMF) can accommodate the same filter area as five or six traditional high-rate sand filters, creating a significant reduction in required mechanical room space. A typical RMF system may reduce a pool's water consumption by up to 97 percent.
- **High Efficiency Direct Fire Heating.** Improvements in burner design as they relate to the integrated heat exchanger have resulted in results that achieve 95 to 97 percent heater efficiency over conventional burner designs.
- **Underwater Pool Lights.** Utilizing light-emitting diode (LED) pool light would save energy costs and extend the life of a light bulb by 10 times.
- **Pool Blankets.** Using pool blankets reduces water evaporation, chemical use, and energy use. Pool blankets may reduce operating costs from water, heat, and chemical losses by as much as 50 percent if used every evening for 8–10 hour periods and may result in annual water savings of approximately 809,000 gallons for the proposed Project.

The proposed Project would increase the size of the on-site pools and the potential number of swim events that could occur concurrently. Mobile-source emissions of GHGs would include Project-generated vehicle trips associated with on-site facilities and visitors/deliveries to the Project site. Area-source emissions would be associated with activities such as landscaping and

maintenance of proposed land uses, natural gas for heating, and other sources. Increases in stationary source emissions would also occur at off-site utility providers as a result of demand for electricity, natural gas, and water by the proposed uses. As shown in Table 4.6.D, the proposed Project would produce an estimated 1,600 MT of CO₂e per year above the existing condition. This does not include any credits for the LEED-certification project features that would reduce energy use and, therefore, reduce GHG emissions from the project.

Table 4.6.D: Long-Term Regional GHG Emissions

Source	Total Regional Pollutant Emissions (MT/yr)					
	Bio-CO ₂	NBio-CO ₂	Total-CO ₂	CH ₄	N ₂ O	CO ₂ e
Construction Emissions Amortized over 30 years	0	23	23	0.0044	0	23
Operational Emissions						
Area	0	0.0033	0.0033	0.00001	0	0.0035
Energy	0	380	380	0.014	0.0047	380
Mobile	0	2,100	2,100	0.079	0	2,100
Waste	150	0	150	8.8	0	330
Water	2.5	44	46	0.26	0.0065	54
Total Project Emissions	150	2,500	2,700	9.2	0.011	2,900
Existing Site Emissions	75	1,200	1,200	4.6	0.0052	1,300
Net Project Emissions	75	1,300	1,500	4.6	0.0058	1,600

Source: LSA Associates, Inc. (March 2016).

Bio-CO₂ = biologically generated CO₂

CH₄ = methane

CO₂ = carbon dioxide

CO₂e = carbon dioxide equivalent

GHG = greenhouse gas

MT/yr = metric tons per year

N₂O = nitrous oxide

NBio-CO₂ = non-biologically generated CO₂

In comparing the proposed Project to the tiered draft interim GHG significance criteria, it is not exempt as described in Tier 1. As previously stated, the City has a Sustainable Action Plan aimed at reducing GHG emissions in the City. Although the Project would be consistent with applicable goals and policies in this plan, the City’s goal of reducing GHG emissions by 15 percent (or 10 tons of CO₂ per capita) by 2020 would not be applicable to the proposed Project as it specifically targets the City’s general facilities and operations. Therefore, this plan is not an applicable GHG reduction plan, per Tier 2. The Tier 3 screening significance criteria level utilizes two categories for proposed projects, “industrial” and “commercial/residential.”

Due to the restaurant component, variable attendance, and intermittent events at the proposed Project, the “commercial/residential” category was used for this analysis. The Tier 3 screening significance criteria level for commercial/residential projects is 3,000 MT of CO₂e per year. As shown in Table 4.6.D, the proposed Project would produce approximately 1,600 MT of CO₂e per year above the existing condition and would not exceed this criterion. Even with the existing site emissions, the proposed Project would produce approximately 2,900 MT of CO₂e per year, which would not exceed this criterion. Therefore, operational emissions would be below the screening threshold of 3,000 MT of CO₂e per year for commercial/residential projects, and Project operations would be considered to have a less than significant impact related to GHG emissions. No mitigation is required.

Conflict with an Applicable GHG Reduction Plan, Policy, or Regulation. The GHG emissions reduction goals in AB 32 are scoped to manage total statewide GHG emissions of approximately 496.95 MMT of CO₂e per year. The proposed Project is estimated to produce approximately 1,600 MT of CO₂e per year over existing conditions, representing approximately 0.002 MMT of CO₂e per year of the State's reduction goals. Therefore, the proposed Project is not considered to result in GHG emission levels that would substantially conflict with implementation of the GHG reduction goals under AB 32, EO S-03-05, or other State regulations.

Therefore, the proposed Project would have a less than significant impact related to potential conflicts with regulations outlined in the California Green Buildings Standard Code and GHG emissions reduction goals in AB 32. No mitigation is required.

4.6.6 Cumulative Impacts

As defined in Section 15130 of the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for land use.

Although the proposed Project is expected to emit GHGs, the emission of GHGs by any single project into the atmosphere is not itself necessarily an adverse environmental effect. Rather, it is the increased accumulation of GHGs from more than one project and many sources in the atmosphere that may result in GCC. The resultant consequences of that climate change, including sea level rise, could cause adverse environmental effects. A project's GHG emissions typically would be very small in comparison to State or global GHG emissions and, consequently, they would, in isolation, have no significant direct impact on climate change. Due to the complex physical, chemical, and atmospheric mechanisms involved in GCC, it is speculative to identify the specific impact, if any, to GCC from one project's incremental increase in global GHG emissions. As such, a project's GHG emissions and the resulting significance of potential impacts are more properly assessed on a cumulative basis. The project-specific analysis conducted above is essentially already a cumulative analysis, because it takes into consideration statewide GHG reduction targets and demonstrates that the proposed Project would be consistent with those targets.

The State has mandated a goal of reducing statewide emissions to 1990 levels by 2020, even though statewide population and commerce is predicted to continue to expand. In order to achieve this goal, the ARB is in the process of establishing and implementing regulations to reduce statewide GHG emissions. However, currently there are no applicable significance thresholds, specific reduction targets, and no approved policy or guidance to assist in determining significance at the cumulative level. Additionally, there is currently no generally accepted methodology to determine whether GHG emissions associated with a specific project represent new emissions or existing, displaced emissions.

The California Attorney General's Office has taken an active role in addressing climate change via the *State CEQA Guidelines*, including, but not limited to, submitting comment letters on draft CEQA documents; filing CEQA lawsuits; and entering into related settlement agreements. Additionally, the Attorney General's Office has created and routinely updates a Fact Sheet listing project design features to reduce GHG emissions. The Attorney General's Office created this Fact

Sheet primarily for the benefit of local agencies processing CEQA documents, acknowledging that “local agencies will help to move the State away from “business-as-usual” and toward a low-carbon future.”¹ The Fact Sheet explains that the listed “measures can be included as design features of a project,” but emphasizes that they “should not be considered in isolation, but as part of a larger set of measures that, working together, will reduce GHG emissions and the effects of global warming.”

The proposed Project emphasizes energy efficiency and water conservation and would be consistent with AB 32’s goals for 2020, the proposed Project would not generate GHG emissions that exceed any applicable threshold of significance, and would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. As a result, the proposed Project’s climate change impacts with regard to GHG emissions would not be considered cumulatively considerable because they would not contribute to GHG emissions that exceed AB 32’s statewide goals.

According to the *Wave Uprush Study* for the proposed Project, wave run-up for the high 2060 and 2100 sea level rise scenarios (2.6 ft and 5.5 ft increase in sea level, respectively), would reach up to 8.2 ft and 10.4 ft (or greater) at the Project site. However, because the main pool deck would be elevated 17 ft amsl, the pool deck would be set 8.8 ft and 6.6 ft above the projected high water level in 2060 and 2100, respectively. The lower level of the building (pool equipment and storage) and associated parking areas would be below the projected water line under both scenarios; however, these areas would not be open for public use, and therefore, would not subject visitors to the Project site to significant cumulative impacts related to sea level rise. Furthermore, additional GHG reduction strategies implemented at the State, national, and international levels could reduce sea-level rise. Therefore, the proposed Project would not be adversely impacted by sea level rise due to climate change.

The *Wave Uprush Study* analyzed potential impacts at the Project site from sea level rise and a 100-year storm for a range of scenarios resulting from the potential changes to the Long Beach Breakwater. The first alternative (BW1) assumed no changes to the existing breakwater and is the basis for the following discussion. According to the *Wave Uprush Study* for the proposed Project, wave run-up for the high 2060 and 2100 sea level rise scenarios (a 2.6 ft and 5.5 ft increase in sea level, respectively), would result in a run up elevation up to 8.2 ft and 10.4 ft (or greater) at the Project site. Without preventative measures, the upper 2100 sea level rise estimate would not only inundate much of the pool facility, but much of the Long Beach Peninsula and Belmont Shore as well. This 2100 condition is not a result of the Project but rather the result of the projected worst-case sea level rise and erosion conditions. It should be noted that the modeled scenario does not account for shore protection measures such as beach nourishment, storm berm construction, winter sand dikes, or other shore protection structures that would be implemented over the long period of time that erosion and sea level rise were occurring. These measures are not required by, or a responsibility of the proposed Project, as the Project does not exacerbate these conditions. Furthermore, because the main pool deck would be elevated 17 ft amsl, the pool deck would be set 8.8 ft and 6.6 ft above the projected high water levels in 2060 and 2100, respectively. The lower level of the building (pool equipment and storage) and associated parking areas would be

¹ State of California Attorney General’s Office Fact Sheet. 2008. *The California Environmental Quality Act Addressing Global Warming Impacts at the Local Agency Level*. December.

below the projected water line under both scenarios; however, these areas would not be open for public use, and therefore, would not subject visitors to the Project site to significant cumulative impacts related to sea level rise. Furthermore, additional GHG reduction strategies implemented at the State, national, and international levels could reduce sea-level rise between now and the year 2100. Therefore, the proposed Project would not be adversely impacted by sea level rise due to climate change, and no mitigation is required.

4.6.7 Level of Significance Prior to Mitigation

The proposed Project would emit GHGs during Project construction; however, these impacts would not substantially contribute to the overall GHG in the environment due to the relatively short construction periods and the relative contribution to the Project's overall lifetime emissions.

By implementing conservation and sustainability features, the proposed Project would result in GHG emissions lower than the accepted significance criterion level. Therefore, GHG emissions and the Project's contribution to global climate change are considered to be less than significant, and no mitigation would be required.

4.6.8 Mitigation Measures

No mitigation is required.

4.6.9 Level of Significance after Mitigation

The proposed Project would not result in potential significant impacts related to GHGs, and no mitigation is required. There are no significant unavoidable adverse impacts of the proposed Project related to Greenhouse Gas emissions and Global Climate Change.

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4.7 HAZARDS AND HAZARDOUS MATERIALS

This section addresses potential hazards and hazardous material impacts at the proposed Belmont Pool Revitalization Project (proposed Project) site and in the surrounding area that may result from implementation of the proposed Project. The information contained in this section is based on the *Phase I Hazardous Materials Assessment (HMA)* prepared by Ninyo & Moore for the Belmont Plaza Pool at 4000 East Olympic Plaza, in Long Beach, Los Angeles County, California (June 2013). Updates to the Phase I HMA were provided in the Update to Hazardous Materials Assessment Prepared for Belmont Pool Revitalization Project (February 2015). These reports are included in Appendix F of this Draft Environmental Impact Report (EIR).

Scoping Process

The City of Long Beach (City) distributed a Notice of Preparation (NOP) for the Draft EIR from April 18 to May 17, 2013. The City received three comment letters in response to the original NOP. No comment letters associated with Hazards or Hazardous Materials were received in response to the original NOP circulated for the proposed Project. Due to revisions in the Project description, the City reissued the NOP for the Draft EIR between April 9, 2014 and May 8, 2014. The City received five comment letters in response to the re-issued NOP during the public review period. No Hazards or Hazardous Materials-related issues were raised in those comment letters.

4.7.1 Methodology

As described above, the information contained in this section is based on the HMA for the Project site prepared by Ninyo & Moore in June 2013. The objective of the HMA was to evaluate existing, potential, or suspect conditions that may pose an environmental liability associated with construction and operation of the proposed Project.

A site reconnaissance was conducted to visually identify areas of possible contamination, improperly stored hazardous materials, possible sources of polychlorinated biphenyls (PCBs), and possible risk of contamination from activities at the site and adjacent properties. In addition, available maps, photographs, reports, and regulatory agency databases and files were reviewed for the Project site and properties located within a 0.25 mile radius of the Project site. The review of the databases included, but were not limited to, identification of locations of known hazardous waste sites; landfills; leaking underground storage tanks (LUSTs); permitted facilities that utilize underground storage tanks (USTs); and facilities that use, store, or dispose of hazardous materials.

Background research included personal interviews of on-site staff and contact with local public agencies to obtain files or records regarding the Project site. The public agencies contacted included the Long Beach Health Department (LBHD)/Environmental Division, the Long Beach Fire Department (LBFD), the Long Beach Department of Health and Human Services (Certified Unified Program Agency [CUPA]), the Long Beach Department of Development Services (LBDDS), the Los Angeles Regional Water Quality Control Board (RWQCB – Region 4), and the South Coast Air Quality Management District (SCAQMD).

The former Belmont Pool was closed to the public on January 13, 2013, as a result of substandard seismic and structural conditions, and was demolished in February 2015, because it was determined

to be an imminent threat to public safety. However, at the time of the original issuance of the NOP, the existing structures were present on the Project site and, therefore, the HMA included a discussion of potential structural environmental and health threats associated with the existing structure. Although not included as a part of this Project, the demolition of the existing structure was required to comply with all applicable health and safety regulations.

4.7.2 Existing Environmental Setting

Project Site.

Historical Use. Based on review of historical information, the site consisted of commercial properties from 1928 until 1956. By 1968, the site appeared to be redeveloped with the Belmont Pool structure and outdoor pool area; the site remained relatively unchanged from 1968 through February 2015, when the structure demolition was completed.

Site Surveys. A site surveillance survey was conducted on May 29, 2012, to visually inspect and assess the potential for on-site Recognized Environmental Concerns (RECs) at the former Belmont Pool facility. The demolition of the former Belmont Pool facility is not a part of the analysis contained in this Draft EIR. However, it should be noted that the site reconnaissance did not identify or observe any RECs associated with any of the following: significant evidence of releases or spills; electrical transformers or PCBs; evidence of staining or release near storage containers; or chlorofluorocarbons (CFCs) or mercury-containing equipment. The HMA did identify the potential for asbestos-containing materials (ACMs) and lead to be present in some building products on site. For informational purposes, a brief discussion of these RECs is included below. As previously stated, the probability of collapse for the existing building on site is higher than acceptable standards and, therefore, the building was scheduled for demolition under an emergency permit (Statutory Exemption SE14-01). Any RECs associated with the building were addressed in conjunction with removal of the structure and in accordance with all health and safety regulations.

The following summarizes the results of the site surveys.

Aboveground Chemical or Waste Storage. Two areas where hazardous waste was stored were observed within the Project site. Two 150-gallon aboveground storage tanks (ASTs), one containing hydrochloric acid and the other, sodium hypochlorite, were observed within a storage shed located at the northwest corner of the outdoor pool area. A 100-gallon AST containing hydrochloric acid and a 200-gallon AST with secondary containment containing sodium hypochlorite were observed within the eastern portion of the indoor Olympic pool area. Significant evidence of releases or spills were not observed at these areas; therefore, these chemical storage areas did not appear to constitute an REC in connection with the Project site.

Electrical Transformers/Polychlorinated Biphenyls. Electrical transformers, which can be a source of PCBs, were not observed during our site reconnaissance. Therefore, no recognized REC was identified at the Project site.

PCBs were commonly incorporated into light ballasts manufactured prior to 1978. All light ballasts manufactured since 1978 are prohibited from containing PCBs and should be marked by the manufacturer with a statement saying “No PCBs.” All light ballasts without the PCB statement are assumed to contain PCBs. PCBs associated with the light ballasts are not considered to be an REC in connection with the Project site.

Evidence of Releases or Potential Releases. Minor staining around the 150-gallon AST containing hydrochloric acid was observed. The floor near the AST was in good condition. Other evidence of chemical releases on the Project site (i.e., odors, stressed vegetation, stains, leaks, pools of liquids, or spills) was not observed during the site reconnaissance. Based on the observations, the minor staining around the 150-gallon AST did not constitute an REC in connection with the Project site.

Chlorofluorocarbons and Mercury. Chlorofluorocarbon (CFC)-containing equipment can pose a health threat due to inhalation as well as to the depletion of the Earth’s ozone layer. Mechanic equipment related to the building operations (refrigerators, air conditioning units, walk-in coolers, etc.) that are older than 1994 have the potential to contain R12 gas (Freon). The approximate year of the renovation of the former Belmont Pool facility and subsequent replacement of the building’s operational equipment was shown to be 1996. Additionally, equipment containing mercury (thermostats or other temperature-controlled devices) were not observed during the site survey. Therefore, on-site equipment containing substances that pose a threat to human health were not considered to be an REC.

Existing Oil Wells. The presence of subsurface methane gas is common within former oil production areas and other locations where organic material is present in the soil. Methane is generated by the biodegradation of organic matter in the absence of oxygen. Methane is not toxic, however, it is combustible and potentially explosive at concentrations above 50,000 part per million (ppm) in the presence of oxygen.

There are no existing oil wells within the Project site. However, the Project site is located within the Wilmington oil field. A plugged and abandoned oil well, “Core Hole” 6, is located approximately 2,000 feet (ft) southwest, and a plugged and abandoned dry hole, “Core Hole” 8, is located approximately 2,500 ft southeast of the Project site. “Water Source Well” B-1 is located in Island White, approximately 5,000 ft southwest of the Project site. Due to the high level of oil availability and production at the Wilmington Oil Field, the presence of subsurface methane gas is a possibility. However, based on the distance to known oil wells in the vicinity of the Project site, the potential presence of methane at the Project site is low. The low potential for encountering methane during excavation for the pool would be managed through compliance with a Contingency Plan that addresses the potential to encounter unknown hazards or hazardous substances during construction activities.

Asbestos-Containing Materials. The use of asbestos in many building products was banned by the United States Environmental Protection Agency (EPA) by the late 1970s. In 1989, the EPA issued a ruling prohibiting the manufacture, importation, processing, and distribution of most ACMs. This rule, known as the Ban and Phase-Out Rule, would have effectively banned the use of nearly 95 percent of all asbestos products used in the United States. However, the United States 5th Circuit Court of Appeals vacated and remanded most of the Ban and Phase-Out Rule in October 1991. Due to this court decision, many asbestos-containing product categories not previously banned (prior to 1989) may still be in use today. Among these common material types found in buildings are floor tile and roofing materials. ACMs represent a concern when they are subject to damage that results in the release of fibers. Friable ACMs, which can be crumbled by hand pressure and are, therefore, susceptible to damage, are of particular concern. Nonfriable ACMs are a potential concern if they are damaged by maintenance work, demolition, or other activities.

A visual assessment of the existing structures was conducted during the site survey for ACMs. Based on the construction date of the existing buildings (prior to 1980), ACMs may be present in subsurface building materials at the site. As stated above, the existing structures were demolished due to seismic safety concerns; the ACMs within the building footprint were remediated in association with the demolition. However, there are currently several subsurface structures present on the Project site that may contain ACMs.

Lead-Based Paint. Lead has been used in commercial, residential, road, and ceramic paint; in electric batteries and other devices; as a gasoline additive; for weighting; in gunshot; and for other purposes. It is recognized as toxic to human health and the environment and is widely regulated in the United States. Buildings constructed prior to 1978 are presumed to contain lead-based paint (LBP) unless proven otherwise, although buildings constructed after 1978 may also contain LBP. Lead is regulated as a “criteria” pollutant under the federal Clean Air Act (CAA), which has led to its elimination from automotive fuels. Lead is also regulated as a toxic pollutant under the federal Clean Water Act (CWA) and the state Porter-Cologne Water Quality Control Act (Porter-Cologne Act) as well as under the federal and California Safe Drinking Water Acts.

Based on the construction date of the existing buildings (prior to 1980), LBPs may be present in building materials at the site. As stated above, the existing structures were demolished due to seismic safety concerns; the LBPs were remediated in association with the demolition. Currently however, the two outdoor pools present on the Project site have tile liners that may contain lead.

Surrounding Properties.

Historical Use. Historical aerial photographs, fire insurance rate maps, and oil and gas maps were reviewed as part of the Phase I HMA for the Project site. In 1928, the surrounding properties consisted of vacant properties north and east of the site and residential properties west of the site. Between 1938 and 1956, commercial properties were developed north of the site; vacant property remained north and east of the site, and residential properties remained west of the site. Between 1968 and 2012, the majority of the adjacent properties remained similar in use to 1956, except a parking lot and an observed maintenance building were

constructed east of the site; and a parking lot was constructed west of the site. Between 1968 and 2012, the site had been developed with the existing structures.

Schools. The California Environmental Quality Act (CEQA) analyzes the potential impacts to schools that are within 0.25 mile of the Project site. One private school, Belmont Shore Children’s Center (30 S. Termino Avenue, Long Beach, California 90803) has been identified within 0.25 mile of the Project site. Belmont Shore Children’s Center serves local communities, including Belmont Shore, Belmont Heights, Naples, California State University of Long Beach (CSULB), Long Beach, Downtown Long Beach, and Seal Beach. The private school provides preschool, child care, day care, and early childhood education for children ages 2 to 6 years old.

Records Searches and Interviews. A thorough investigation was conducted to establish a baseline of background information by reviewing available maps, photographs, reports, and regulatory agency databases and files within 0.25 mile radius of the Project site.

Regulatory database information was produced by Environmental Data Resources, Inc. (EDR) for the Phase I HMA and is provided in Appendix F. The database report is dated June 6, 2013. The database information was conducted for the Project site as part of the Phase 1 HMA. In addition to the American Society for Testing and Materials (ASTM)-required listings, Ninyo & Moore also reviewed other federal, State, local, and proprietary database provided by EDR. Results of the database searches did not include the Project site. However, the State Leaking Underground Storage Tank List (within a 0.25 mile) resulted in two open listings, as shown in Table 4.7.A.

Table 4.7.A: Listed Facilities Within 0.25 Mile of the Project Site

Facility Name and Location	Estimated Distance/Direction/Gradient	Database Listings
ARCO No. 1063 3955 Ocean Boulevard E	0.15 mile/north-northeast/up-gradient	LUST
Unocal No. 5939 76 Termino Avenue	0.16 mile/north/up-gradient	LUST

LUST = Leaking Underground Storage Tank

ARCO No. 1063. ARCO No. 1063 is located approximately 0.15 mile north-northeast of the Project site and is in a hydrogeologic up-gradient position relative to the Project site. This facility is listed in the LUST database and the current regulatory status is open. ARCO No. 1063 is currently an active service station with three 12,000-gallon USTs, two dispenser islands, and an AM/PM Food Mart. The potential contaminant of concern was reported to be gasoline, and the potential media affected was reported to be the aquifer used for drinking water supply. A review of the RWQCB’s Geotracker website on February 16, 2015 indicated that the ARCO station is in the process of preparing a closure plan. In addition, based on the latest groundwater sampling on November 25, 2014, no petroleum impact was detected in the monitoring well closest to the Project site.

In July 2014, groundwater sampling was conducted for the demolition activities of the former Belmont Pool facility. Results of the groundwater testing revealed concentrations that exceeded the National Pollutant Discharge Elimination System (NPDES) screening levels for some metals (beryllium, copper mercury, nickel, lead, antimony, and zinc) and for some dissolved metals (cadmium, copper, mercury, nickel, lead, and antimony). However, no detectable constituents of gasoline were reported by the laboratory.

UNOCAL No. 5939. UNOCAL No. 5939 is located approximately 0.15 mile north of the Project site and is in a hydrogeologic up-gradient position relative to the Project site. This facility is listed in the LUST database and the current regulatory status is open. This station has an open environmental case associated with it, also overseen by the Los Angeles RWQCB. The facility is currently an active service station with two 10,000-gallon gasoline USTs, one 500-gallon used-oil UST, and three dispenser islands with associated product piping. The potential contaminant of concern was reported to be gasoline, and the potential media affected was reported to be the aquifer used for drinking water supply. The review of the Geotracker website on February 16, 2015 determined that the LUST at the UNOCAL station has a case closed status.

4.7.3 Regulatory Setting

Hazardous waste is the used or leftover portion of any hazardous chemicals or materials. Any used or leftover product that is labeled with the words danger, warning, toxic, caution, poison, flammable, corrosive, or reactive is considered a hazardous waste. Universal waste, also considered to be hazardous, includes consumer batteries, light bulbs, light tubes, and mercury-containing items. Regulations govern the collection and management of these widely generated wastes, thus facilitating environmentally sound collection and proper recycling or treatment. These regulations ease the regulatory burden on retail stores and others that wish to collect hazardous wastes and encourage the development of municipal and commercial programs to reduce the quantity of these wastes going to municipal solid waste landfills or combustors. In addition, the regulations also ensure that the wastes subject to this system will go to appropriate treatment or recycling facilities pursuant to the full hazardous waste regulatory controls. Implementation of these regulations and the management of hazardous materials are regulated independently of the CEQA process through programs administered by various agencies at the federal, State, and local levels.

As described below, every hazardous waste generator is required to have an emergency contingency plan (business plan) designed to minimize hazards to human health and the environment from fires, explosions, or an unplanned release of hazardous waste to air, soil, or surface water. The plan is carried out immediately whenever a fire, explosion, or unplanned chemical release occurs.

Federal and State Policies and Regulations.

Hazardous Materials. The federal Toxic Substances Control Act (TSCA) of 1976 regulates chemical substances, which are substances and mixtures that might pose unreasonable risks of injury to human health or the environment. TSCA authorizes the EPA to require manufacturers to test their chemical products to determine their “toxic effects” and provide this information to the EPA for agency review before commercial manufacture is permitted.

Businesses that utilize hazardous materials are subject to Emergency Planning and Community Right-to-Know (Proposition 65) requirements as set forth in Title III of the Superfund Amendments and Reauthorization Act (SARA) and the California Waters Bill. These regulations require worker notification of hazardous substances in the workplace.

The State Waters Bill (Assembly Bill [AB] 2185 et al.), set forth in the California Health and Safety Code Sections 25500–25545, requires businesses that utilize hazardous materials above certain thresholds to prepare on-site “business plans” for possible emergencies involving those materials and to provide copies of the plans to local emergency response agencies. The business plans must include an Inventory List and an Emergency Action Plan. Minimum thresholds are as follows:

- Liquids: 55 gallons
- Solids: 500 pounds
- Compressed gases: 200 cubic feet (measured at standard temperature and pressure)
- Radioactive: Quantities that exceed Nuclear Regulatory Commission thresholds, requiring the preparation of emergency plans (10 Code of Federal Regulations [CFR] Parts 30, 40, and 70)

Exemptions from these thresholds include the following:

- Hazardous materials stored as consumer packages for direct distribution to the general public
- Up to 1,000 cubic feet of oxygen, nitrous oxide, and/or nitrogen stored by physicians, dentists, podiatrists, veterinarians, and pharmacists
- Up to 55 gallons of any lubricating oil and up to 275 gallons of all lubricating oil stored by one business

Hazardous Waste. Federal and California laws provide for “cradle-to-grave” regulation of hazardous wastes (i.e., the regulations govern a hazardous waste from its point of generation to its point of disposal at an approved landfill or incinerating facility). The federal hazardous waste law is known as the Resource Conservation and Recovery Act (RCRA; 40 CFR 240 et seq.). California has merged its RCRA authority into ongoing implementation of the State Hazardous Waste Control Law (HWCL), which was initially adopted in 1972 (22 California Code of Regulations [CCR] Section 66260.1 et seq.).

The EPA has primary responsibility for implementing the RCRA, and the California Department of Toxic Substances Control (DTSC) is the State’s Lead Agency in implementing HWCL and RCRA provisions. California allows county and city health departments and other local agencies to implement certain HWCL provisions regulating hazardous waste generators under terms of Memorandums of Understanding (MOUs) with the DTSC.

All RCRA-regulated and California-regulated hazardous waste must be recorded on hazardous waste manifests, with copies sent to the DTSC. The manifest is a way of tracking hazardous waste from its inception to its disposal. The Project site is subject to these requirements for

disposal and transport of hazardous waste. Within its jurisdictional area, the CUPA receives copies of hazardous waste manifests for tracking purposes.

Occupational Safety and Health. The federal Occupational Safety and Health Act of 1970 (OSH Act) (40 CFR 1902–1990) is the principal national law providing for worker safety and the right to know. The broad policy goal of the act is “to assure so far as possible every working man and woman in the Nation a safe and healthful working environment.” It is implemented by the United States Occupational Safety and Health Administration (OSHA), whose responsibilities include developing and promulgating occupational safety and health standards and ensuring that these standards are administered and enforced nationwide.

The federal OSH Act allows states to administer OSHA requirements after submitting a state plan. The California Occupational Safety and Health Administration (Cal/OSHA) administers OSHA standards applicable to private employers within the State, along with additional authority provided by the California Occupational Safety and Health Act of 1973 (State OSH Act) (8 CCR Sections 330–8618). Complaints regarding health and safety issues at the Project site would be investigated by Cal/OSHA.

Asbestos-Containing Materials. ACM products presently banned are corrugated paper, rollboard, commercial and specialty paper, flooring felt, and new uses of asbestos. Revisions to regulations issued by OSHA (June 30, 1995) require that all thermal system insulation, surfacing materials, and resilient flooring materials installed prior to 1981 be considered “presumed” asbestos-containing materials (PACMs) and treated accordingly. To rebut the designation as PACMs, OSHA requires that these materials be surveyed, sampled, and assessed in accordance with 40 CFR 763 (Asbestos Hazard Emergency Response Act [AHERA]).

All asbestos should be removed from structures and disposed of in accordance with local, state, and federal regulations prior to renovation or demolition activities that would affect structures containing asbestos. Release of asbestos into the environment is a violation of several laws, including the OSH Act, the RCRA, the CAA, and the CWA.

Lead. Lead has been used in commercial, residential, roadway, and ceramic paint products; in electric batteries and other devices; as a gasoline additive; for weighting, in gunshot; and for other purposes. It is recognized as toxic to human health and the environment and is widely regulated in the United States. Buildings constructed prior to 1978 are presumed to contain LBP unless proven otherwise, although buildings constructed after 1978 may also contain LBP. Lead is regulated as a “criteria” pollutant under the CAA, which has led to its elimination from automotive fuels. Aerially deposited lead (ADL) from past use of leaded fuels is a concern in unpaved areas adjacent to highly traveled roadways. Lead is also regulated as a toxic pollutant under the CWA and the Porter-Cologne Act, as well as under the federal and California Safe Drinking Water Acts.

All LBP above regulatory thresholds should be removed from structures and disposed of in accordance with local, State, and federal regulations prior to renovation or demolition activities

that would affect structures that contain LBP or soils adjacent to structures that contain LBP. Release of LBP into the environment is a violation of several laws, including the OSH Act, the RCRA, the CAA, and the CWA.

Local Policies and Regulations.

There are no specific goals or policies related to hazardous materials in the City's General Plan. The Public Safety Element lists general protection and remedial action goals for general safety hazards and for emergencies. Transport of hazardous materials is deferred to California Department of Transportation (Caltrans) requirements and is specified along designated truck routes. The Public Safety Element indicates that planning efforts should include a buffer for all uses from truck routes to reduce potential impacts from dangerous materials by way of setbacks or natural barriers.

The Long Beach CUPA is designed to consolidate and administer hazardous material permits, inspections, and enforcement activities, throughout the City's jurisdiction. The goal of this program is to create a more cohesive and efficient system whereas applications and required forms are standardized and consolidated in conjunction with inspection, and annual fees for each program are merged into a single fee system creating a more consistent and efficient Program. CUPA was first created in 1993 under Senate Bill 1082, which administratively consolidated six hazardous materials and waste programs under one agency. The Lbfd and the LBHD share oversight of the Long Beach/Signal Hill CUPA. These Program elements are:

- Uniform Fire Code Plans and Inventory Requirements
- Hazardous Materials Release Response Plans and Inventory Program ("Community-Right-To-Know")
- Aboveground Storage Tank (AST) Spill Prevention Control and Countermeasure Plan (SPCC)
- Underground Storage Tank (UST) Program
- Hazardous Waste Generator and On-site Hazardous Waste Treatment Programs (Tiered Permitting)
- California Accidental Release Prevention Program (CalARP)

The following chapters are included in Title 8, Health and Safety, of the City of Long Beach Municipal Code with regard to hazardous materials:

Chapter 8.85 – *Underground and Aboveground Storage Tanks*. Designates the CUPA with authority to prevent injury or damage to businesses or property due to air pollution.

Chapter 8.86 – *Hazardous Materials Release Response Plans and Inventory*. Designates the Long Beach/Signal Hill CUPA as the local authority for underground and aboveground storage tank compliance.

Chapter 8.87 – *Hazardous Waste Control*. Designates the Long Beach/Signal Hill CUPA as the local authority to enforce Chapter 6.5 of Division 20 of the California Health and Safety Code.

Chapter 8.88 – *Hazardous Materials Clean-Up*. Requires site characterization, site remediation, and initial and final reports for contaminated sites in accordance with state and local laws and regulations.

The City Department of Health and Human Services must prepare a Health and Safety Plan for all workers in accordance with federal, State, and local regulations for use during construction, subject to review and approval by the City of Long Beach Development Services Director. Federal Regulations include the following:

- Occupational Safety and Health, Title 29 CFR, Regulations for General Industry (Part 1910) and Construction (Part 1926)
- EPA, Title 40 CFR, National Emissions Standard for Hazardous Air Pollutants (NESHAPS), (Part 61, Subpart A)
- United States Department of Transportation (USDOT) Regulations, Title 49 CFR
- California State and local regulations that include the following:
 - Title 8 CCR, Cal/OSHA Regulations, Chapter 4, Division of Industrial Relations, General Industry Safety Orders and Construction Safety Orders
 - Title 22 CCR, Social Security, Division 2, Department of Social Services – Department of Health Services, and Division 4, Environmental Health
 - SCAQMD, Rules and Regulations

The Health and Safety Plan must include a summary of all potential risks to construction workers, monitoring program, maximum exposure limits for all site chemicals, and emergency procedures. A Site Health and Safety Officer must be identified in the plan. The plan must specify methods of contact, phone number, office location, and responsibilities of the Site Health and Safety Officer. The Health and Safety Plan is required to be amended as needed if different site conditions are encountered by the Site Health and Safety Officer.

An on-site monitor will be provided to ensure compliance with mitigation related to dust control as addressed in Section 4.2, Air Quality (Mitigation Measures 4.2-1 and 4.2.2). SCAQMD Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Compliance with SCAQMD Rules 402 and 403 is required in order to ensure that air conditions are safe and acceptable for on-site workers, as well as residents and workers of properties adjacent to the site. The City or the assigned contractor/developer is required by these existing regulations to stop, redirect, or otherwise change during any grading work or other subsurface trenching, drilling, and/or subsurface disturbance in order to avoid the spread of fugitive dust.

4.7.4 Impact Significance Criteria

Thresholds for evaluating impacts related to hazards and hazardous materials are based on Appendix G of the *State CEQA Guidelines*. Impacts resulting from hazards or hazardous conditions in the Project area are considered to be significant if implementation of the proposed Project would:

- Threshold 4.7.1:** Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Threshold 4.7.2:** Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Threshold 4.7.3:** Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Threshold 4.7.4:** Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- Threshold 4.7.5:** For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area;
- Threshold 4.7.6:** For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area;
- Threshold 4.7.7:** Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- Threshold 4.7.8:** Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residents are intermixed with wildlands.

During the scoping process, it was determined that no safety hazard associated with private airstrips would occur upon implementation of the proposed Project because the proposed Project is not located within 2 miles of a public airport, within the vicinity of a private airstrip, or within an airport land use plan (Thresholds 4.7.5 and 4.4.6). Also, the Project would not result in changes in the circulation system that would adversely affect the ability of the Lbfd to implement an emergency response plan or emergency evacuation plan in this part of the City (Threshold 4.7.7). In addition, since the Project site is not located in a completely urbanized area and does not include brush- and grass-covered areas typically found in areas susceptible to wildfires, no impacts would result related to wildland fires (Threshold 4.7.8). Therefore, these issues are not discussed further in this Draft EIR. Refer to Appendix A, Initial Study (IS)/NOP, for additional discussion.

CEQA Baseline. At the time the NOP was issued, the Project site contained both the Belmont Pool facilities and the outdoor temporary pool (opened in December 2013 to provide swimming facilities while the permanent facility was under construction). Although the site contained the former Belmont Pool building at the time of the NOP, the facility was subsequently demolished in February 2015 to alleviate an imminent public safety threat due to the seismically unsafe condition of the building.

The inclusion of the former building in the assessment of hazardous materials impacts is appropriate because several subsurface structures that may contain hazardous building materials are currently present on the Project site. These structures were not removed at the time the pool building was demolished. Therefore, substantial evidence supports the determination that inclusion of the pool facility as part of the baseline existing conditions is appropriate because the subsurface building structures remain on the site.

4.7.5 Project Impacts

Threshold 4.7.1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

or

Threshold 4.7.2: Would the project create a significant hazard to the public or the environment through the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than Significant Impact with Mitigation Incorporated.

Construction. Construction activities would involve the use of potentially hazardous materials, including vehicle fuels, oils, and transmission fluids. All potentially hazardous materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with existing federal, State, and local regulations to ensure that the amounts of these materials present during construction would be limited and would not pose a significant adverse hazard to workers or the environment. Furthermore, the construction contractor would be required to implement standard best management practices regarding hazardous materials storage, handling, and disposal during construction in compliance with the State Construction General Permit to protect water quality (refer to Mitigation Measure 4.8.1 in Section 4.8, Hydrology and Water Quality). Any associated risk would be reduced to a level that is less than significant through compliance with these standards and regulations; thus, the limited use and storage of hazardous materials during construction of the proposed Project would not pose a significant hazard to the public or the environment. Accordingly, potential impacts associated with the routine transport, use, or disposal of potentially hazardous materials during construction of the proposed Project would be less than significant.

As discussed in Section 4.7.2, the Project site is located within the Wilmington oil field, and plugged and abandoned oil wells or dry holes are located in the site vicinity. Based on the distance to known oil wells in the vicinity of the Project site, the potential presence of methane at

the Project site is low. The low potential for encountering methane during excavation for the pool would be managed through compliance with a Contingency Plan that addresses the potential to encounter unknown hazards or hazardous substances during construction activities that would be approved by City of Long Beach (City) Fire Department (LBFD). This Contingency Plan requirement is included as Mitigation Measure 4.7.1; therefore, with implementation of Mitigation Measure 4.7.1, impacts related to the potential to encounter methane during construction would be less than significant.

As previously stated, a site reconnaissance survey of the site revealed that ACMs may be present in subsurface building materials at the site. While the majority of the buildings on the site were previously demolished under an emergency permit (Statutory Exemption SE14-01), several subsurface buildings, which may contain ACMs, are currently present on the site. As such, mitigation is required to reduce potentially significant health hazards associated with potential ACMs on the Project site. Mitigation Measure 4.7.2 requires the preparation of predemolition surveys to identify the presence of ACMs in the existing on-site structures and outlines precautions to ensure the materials are properly removed. Therefore, with implementation of Mitigation 4.7.2, potential hazardous impacts associated with ACMs would be reduced to a less than significant level.

In addition to the potential to encounter ACMs in subsurface buildings present on the site, the site reconnaissance survey indicated that the tile liners of the two outdoor pools currently present on the site might contain lead. Because the Project includes the demolition of these existing pools, the proposed Project would be required to implement Mitigation Measure 4.7.2, which requires the preparation of predemolition surveys and appropriate procedures to be followed in the unlikely event that unknown hazardous materials are encountered in order to reduce potentially significant health hazards associated with potential lead on the Project site. Therefore, with implementation of Mitigation Measure 4.7.2, potential hazardous impacts associated with lead would be reduced to a less than significant level.

Two gas stations (ARCO No. 163 and UNOCAL No. 5939) listed on the LUST database included in the Phase I HMA. These facilities are located approximately 0.15 mile northeast and north of the Project site and in a hydrogeologic up-gradient position relative to the site. As of February 16, 2015, the RWQCB Geotracker website reported that the UNOCAL LUST has a case closed status and the ARCO station is preparing a closure plan. Groundwater sampling conducted at the ARCO site in November 2014 did not detect a petroleum impact in the monitoring well closest to the Project site and groundwater sampling conducted at the Project site in July 2014 did not report detectable constituents of gasoline.

Based on groundwater sampling discussed above, there is a potential to encounter dissolved metals levels in groundwater in excess of the allowable limits for discharge to the storm drain system. This will be addressed through compliance with the applicable NPDES permit or the Los Angeles RWQCB's Groundwater Discharge Permit, which would require testing and treatment (as necessary) of groundwater encountered during groundwater dewatering prior to release to the storm drain system. If dewatered groundwater cannot meet the discharge limitations specified in the Groundwater Discharge Permit, groundwater would be disposed of in the sewer system and would have to meet Los Angeles County Sanitation District (LACSD) discharge limits prior to release to the storm drain system.

However, the potential that groundwater impacted by petroleum hydrocarbons beneath the site is low. The low potential for encountering petroleum hydrocarbons in groundwater during excavation for the pool would be managed through compliance with a Contingency Plan that addresses the potential to encounter unknown hazards or hazardous substances during construction activities that would be approved by City of Long Beach (City) Fire Department (LBFD). This Contingency Plan requirement is included as Mitigation Measure 4.7.1; therefore, with implementation of Mitigation Measure 4.7.1, impacts related to the potential to encounter petroleum hydrocarbons in groundwater during construction would be less than significant.

Operation. Operation of the proposed Project would not include uses with the potential to generate large quantities of hazardous and/or toxic materials, and would, therefore, have less than significant impacts related to the potential to cause fires or result in serious accidents from hazardous materials and substances. Pool and building maintenance associated with the proposed Project may include the use of chemicals that can be hazardous if not properly used, stored, or disposed. However, the use, storage, and handling of these pool maintenance hazardous materials is regulated by the EPA, the California Building Code, the County of Los Angeles Department of Environmental Health, the LBFD and Cal/OSHA. The operational impact of the proposed Project on the environment through the release of hazardous materials would not be significant with mandatory compliance with applicable rules and regulations concerning hazardous chemicals. Compliance with applicable regulations would ensure that potential hazardous material impacts associated with the operation of the proposed Project would be less than significant. Therefore, no mitigation is required.

Threshold 4.7.3: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less than Significant Impact with Mitigation Incorporated. One private school, Belmont Shore Children's Center, has been identified within 0.25 mile from the Project site, and is located 300 feet to the north. There are no proposed schools within 0.25 mile of the Project site.

Construction. As discussed above, construction activities would involve the use of potentially hazardous materials, including vehicle fuels, oils, and transmission fluids. All potentially hazardous materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with existing federal, State, and local regulations to ensure that the amounts of these materials present during construction would be limited and would not pose a significant adverse hazard to workers or the environment. Furthermore, the construction contractor would be required to implement standard best management practices regarding hazardous materials storage, handling, and disposal during construction in compliance with the State Construction General Permit to protect water quality (refer to Mitigation Measure 4.8.1 of Section 4.8, Hydrology and Water Quality). The proposed Project would also be required to implement Mitigation 4.7.2, which requires preparation of predemolition surveys to reduce potentially significant impacts associated with the presence of ACMs or lead on the site. Any associated risk would be adequately reduced to a level that is less

than significant through compliance with these mitigation measures and applicable standards and regulations; thus, the limited use and storage of hazardous materials during construction of the proposed Project would not pose a significant hazard to the public or the environment, including the Belmont Shore Children's Center.

Operation. As previously stated, operation of the proposed Project would not include uses with the potential to generate large quantities of hazardous and/or toxic materials and, therefore, the potential to cause fires or result in serious accidents from hazardous materials and substances during operations is less than significant. Pool and building maintenance associated with the proposed Project may include the use of chemicals that can be hazardous if not properly used, stored, or disposed. However, the use, storage, and handling of these pool maintenance hazardous materials is regulated by the EPA, the California Building Code, the County of Los Angeles Department of Environmental Health, the CLBFD and Cal/OSHA. Proper routine use of these hazardous products would not result in a significant hazard to the school, residents, or workers in the vicinity of proposed Project. The proposed Project would not produce any significant amounts of hazardous emissions; any hazardous materials on site would be handled in accordance with all applicable regulations, including containment, reporting, and remediation requirements, in the event of a spill or accidental release. Therefore, operation of the proposed Project would not result in a significant impact associated with hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school, and no mitigation is required.

Threshold 4.7.4: **Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

Less than Significant Impact. The HMA prepared for the Project (Appendix F) determined that the Project site is not included on any hazardous materials sites pursuant to Government Code Section 65962.5, including the Cortese List, and would not create a significant hazard to the public or the environment. No mitigation is required.

4.7.6 Cumulative Impacts

As defined in Section 15130 of the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for hazards and hazardous materials. The assessment of potential cumulative impacts associated with hazards and hazardous materials relates to the potential for impacts to occur off site. The study area for hazardous materials consists of: (1) the area that could be affected by proposed Project activities, such as the release of hazardous materials, and (2) the areas affected by other projects whose activities could directly or indirectly affect the presence or fate of hazardous materials on the Project site. Typically, only projects adjacent to or abutting the Project site are considered because of the limited potential impact area associated with the release of hazardous materials into the environment. There are no known Projects adjacent to or in

the vicinity of the Project site that could be affected by on-site handling of hazardous materials or that could result in significant hazards or hazardous materials impacts on site.

The contribution of hazardous materials use and hazardous waste disposal with implementation of the Project is minimal, and combined hazardous materials effects from past, present, and reasonably foreseeable projects within the City would not be significant. As previously stated, the proposed Project would involve the use of potentially hazardous materials related to pool and building maintenance (e.g., solvents, cleaning agents, paints, pesticides, and diesel and petroleum fuels), but these products would be used in small amounts and any spills that do occur would be cleaned up when they occur. Proper and routine use of these products would not result in a significant hazard to residents or workers in the vicinity of the proposed Project.

Impacts associated with removal of unknown hazardous materials during construction and use of hazardous materials on site would be controlled through application of the procedures set forth in Mitigation Measures 4.7.1 and 4.7.2. There are no known projects adjacent to or in the vicinity of the Project site that could be affected by on-site handling of hazardous materials or that could result in significant hazards or hazardous materials impacts on site. Accordingly, the proposed Project's contribution to hazardous materials cumulative impacts would be less than significant with implementation of mitigation.

4.7.7 Level of Significance Prior to Mitigation

Operation of the proposed Project would not result in a significant impact associated with hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school, and the proposed Project site is not located a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Potential impacts related to the routine transport, use, or disposal of hazardous materials are less than significant. Prior to the implementation of mitigation measures, the Project could result in a potentially significant impact related to the potential to encounter and the need to dispose of hazardous materials (i.e., ACMs, CFCs, lead, and other contaminated materials/substances) during construction activities.

4.7.8 Mitigation Measures

Mitigation Measure 4.7.1: **Contingency Plan.** Prior to issuance of any excavation or grading permits or activities, the City of Long Beach (City) Fire Department (LBFD), or designee, shall review and approve a contingency plan that addresses the potential to encounter on-site unknown hazards or hazardous substances during construction activities. The plan shall require that if construction workers encounter underground tanks, gases, odors, uncontained spills, or other unidentified substances, the contractor shall stop work, cordon off the affected area, and notify the LBFD. The LBFD responder shall determine the next steps regarding possible site evacuation, sampling, and disposal of the substance consistent with local, State, and federal regulations.

Mitigation Measure 4.7.2:

Predemolition Surveys. Prior to commencement of demolition and/or construction activities, the City LBFD, or designee, shall verify that predemolition surveys for asbestos-containing materials (ACMs) and lead (including sampling and analysis of all suspected building materials) shall be performed. All inspections, surveys, and analyses shall be performed by appropriately licensed and qualified individuals in accordance with applicable regulations (i.e., American Society for Testing and Materials E 1527-05, and 40 Code of Federal Regulations [CFR], Subchapter R, Toxic Substances Control Act [TSCA], Part 716). If the predemolition surveys do not find ACMs or lead-based pipes (LBPs), the inspectors shall provide documentation of the inspection and its results to the City LBFD, or designee, to confirm that no further abatement actions are required.

If the predemolition surveys find evidence of ACMs or lead, all such materials shall be removed, handled, and properly disposed of by appropriately licensed contractors according to all applicable regulations during demolition of structures (40 CFR, Subchapter R, TSCA, Parts 745, 761, and 763). Air monitoring shall be completed by appropriately licensed and qualified individuals in accordance with applicable regulations both to ensure adherence to applicable regulations (e.g., South Coast Air Quality Management District [SCAQMD]) and to provide safety to workers. The City shall provide documentation (e.g., all required waste manifests, sampling, and air monitoring analytical results) to the LBFD showing that abatement of any ACMs or lead identified in these structures has been completed in full compliance with all applicable regulations and approved by the appropriate regulatory agencies (40 CFR, Subchapter R, TSCA, Parts 716, 745, 761, 763, and 795 and California Code of Regulations Title 8, Article 2.6). An Operating and Maintenance Plan shall be prepared for any ACM or lead to remain in place and shall be reviewed and approved by the LBFD.

4.7.9 Level of Significance after Mitigation

Mitigation Measures 4.7.1 and 4.7.2 will reduce potential impacts related to the potential to encounter and the need to dispose of hazardous materials during construction activities to a less than significant level. All other potential Project impacts related to Hazards and Hazardous Materials have been determined to be less than significant.

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4.8 HYDROLOGY AND WATER QUALITY

This section describes the environmental and regulatory setting of the proposed Belmont Pool Revitalization Project (proposed Project) site and vicinity with respect to surface and groundwater hydrology and quality. This analysis addresses potential impacts to hydrology and water quality resulting from implementation of the proposed Project and is based on information provided by various public agencies, including the Federal Emergency Management Agency (FEMA), Department of Water Resources (DWR), Los Angeles Regional Water Quality Control Board (RWQCB), the County of Los Angeles (County), and the City of Long Beach (City).

Scoping Process

The City of Long Beach distributed the first Notice of Preparation (NOP) for the Draft Environmental Impact Report (EIR) from April 18 to May 17, 2013. The City received three comment letters in response to the original NOP. The Los Angeles County Flood Control District (LACFCD) submitted two comments: (1) to disclose in the EIR and obtain a permit from LACFCD for any connections to LACFCD drains/facilities; and (2) to include a Hydrology Study/Water Quality Plan as part of the EIR. Due to the revisions in the Project Description, the City re-issued and circulated the NOP for the EIR between April 9, 2014, and May 8, 2014. The City received five comment letters in response to the re-issued NOP during the public review period. No comment letters were received regarding Hydrology and Water Quality.

4.8.1 Existing Setting

Regional Hydrology and Watershed. The Project site is located in the San Gabriel River watershed. The watershed drains 640 square miles (sq mi) from Los Angeles, Orange, and San Bernardino Counties and is bounded by the San Gabriel Mountains to the north, a large portion of San Bernardino and Orange Counties to the east, the Los Angeles River watershed to the west, and the Pacific Ocean to the south. The San Gabriel River's headwaters originate in the San Gabriel Mountains, while the lower part of the river flows through a concrete-lined channel before becoming a soft-bottom channel near its termination at the Pacific Ocean. The Project site is located within the Los Cerritos Channel and Alamos Bay Water Management Area (WMA) of the San Gabriel River watershed (see Figure 4.8.1). The WMA is located between the Los Angeles and San Gabriel Rivers and drains to the same general area as the San Gabriel River into the Pacific Ocean. The Los Cerritos Channel and Alamos Bay represent the main water bodies of the WMA.¹

For planning purposes, the Los Angeles RWQCB uses a watershed classification system that divides surface waters into hydrologic units, areas, and subareas. As designated by the Los Angeles RWQCB, the Project site is located within the Los Angeles-San Gabriel Hydrologic Unit (HU), covering most of Los Angeles County, and drains a 1,608 sq mi area. The Los Angeles-San Gabriel HU is divided

¹ County of Los Angeles, Department of Public Works, San Gabriel River Watershed. Website: <http://dpw.lacounty.gov/wmd/watershed/sg/> (accessed June 6, 2014); State Water Resources Control Board. Website: http://www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/Water_Quality_and_Watersheds/los_cerritos_channel/summary.shtml (accessed June 6, 2014).

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into Hydrologic Areas (HAs), which are then divided into Hydrologic Subareas (HSAs). The Project site is located in the Lower San Gabriel HA and in the Alamitos Bay HSA.¹

The Los Angeles River and the San Gabriel River are the major drainage systems in the City of Long Beach. The San Gabriel River is located approximately 2 miles (mi) to the southeast of the Project site and the Los Angeles River is located approximately 3.5 mi to the west. There are no surface water bodies located on the Project site but the Pacific Ocean is adjacent to the Project site along the southern boundary.

Project Site Drainage Pattern. Most of the surface runoff from the Project site is generated on the site, with almost no surface flow entering the site from other areas. There are several storm drain lines (see Figure 4.8.2: Existing Site Storm Drain System) running through and surrounding the Project site that collect and transfer the surface flow from the Project site. The northern half of the site is a grassy open space area that allows for rainfall to filter into the ground. The remaining storm water runoff generated by the site flows over asphalt pavement and concrete gutters to curb opening inlets located at various points surrounding the property boundary. These inlets then convey the flow into the beach and untreated to the west at a storm drain outlet that empties onto the beach, immediately to the north of the Belmont Pier. The existing site contains approximately 2.1 acres (ac) of impervious surfaces with the pervious areas accounting for approximately 3.7 ac.

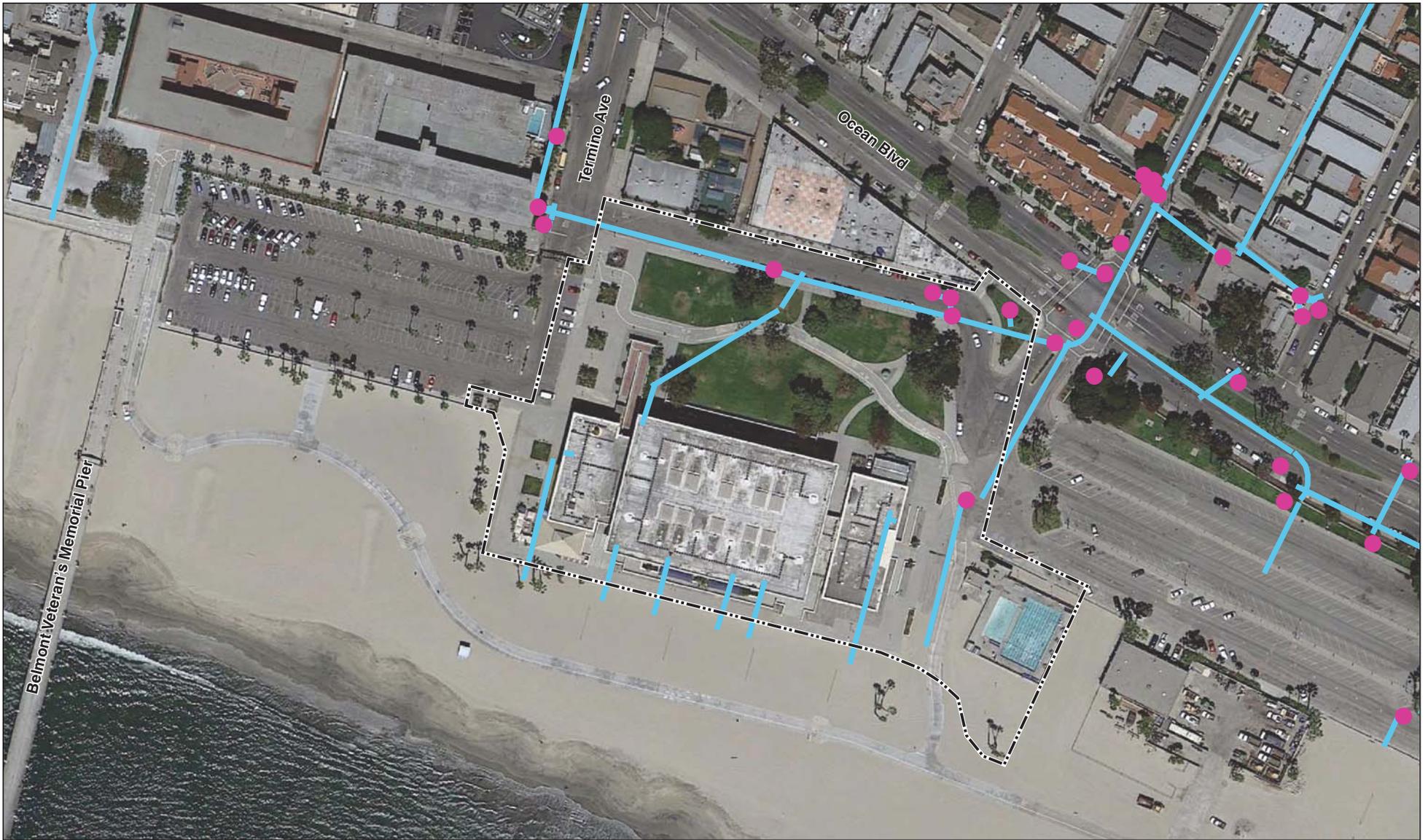
Surface Water Quality. Surface water quality in the San Gabriel River Watershed has been affected in a way that is consistent with the high level of surrounding urban development. Non-point-source pollution from urban impervious surfaces such as parking lots, roadways, sidewalks, and rooftops is a major contributor to impairment of streams and water bodies. Impervious surfaces direct runoff into water systems of grease, oil, antifreeze, and other vehicle emissions; heavy metals from brake dust; pathogens; and food waste, litter, and other debris. Landscaped areas contribute pesticides, fertilizers, animal droppings, and other landscape waste into the storm water system. Meteorology may affect surface water quality through the quantity and intensity of storm events, which determine to what extent pollutants are washed away by runoff. Geology and soils may affect surface water quality in that they determine infiltration and runoff velocity. The more infiltration of runoff into the soil, and the slower the runoff velocity, the less ability the runoff has to carry sediments and pollutants. These pollutants can have damaging effects on both human health and aquatic ecosystems.

Ocean Water Quality. Long Beach has approximately 7 mi of public beach and is visited by over 50,000 people during the summer months. In urban areas during dry weather, runoff can occur as a result of landscape irrigation, the draining of swimming pools, car washing, and various commercial activities. Along the coast of California, where summers are dry, dry-weather runoff is the most common cause of advisories issued due to elevated bacteria levels.² In order to protect the safety of the public, weekly water samples are collected and tested routinely to monitor bacterial levels.

¹ Los Angeles Regional Water Quality Control Board (RWQCB), Water Quality Control Plan-Los Angeles Region, 1995, updated 2011.

² California State Water Resources Control Board (SWRCB), "California Beach Water Quality Background Information." Website: www.swrcb.ca.gov/water_issues/programs/beaches/beach_water_quality/background.shtml (June 6, 2014).

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LSA

LEGEND

- Project Site
- Existing Storm Drain Pipelines
- Storm Drain Device



SOURCE: DigitalGlobe (4/08); City of Long Beach (2008, 1/09)
 I:\CLB1302\G\2016\Existing Storm Drain System.cdr (3/2/16)

FIGURE 4.8.2

Belmont Pool Revitalization Project
 Existing Site Storm Drain System

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The City tests samples of ocean water for three types of bacteria (total coliform, fecal coliform, and enterococcus) and results are evaluated against standards established by the State. The thresholds to determine hazardous health conditions are:

- **Total Coliform:** 1,000 per 100 milliliters (mL) if Fecal/Total is $>.1$; 10,000 per 100 mL if Fecal/Total is $<.1$
- **Fecal Coliform:** 400 per 100 mL
- **Enterococcus:** 104 per 100 mL

Currently, the City tests the ocean water quality at 15 various locations along the coast. The West Side of Belmont Pier and Prospect Street Beach are two sampling sites located adjacent to the west and east of the Project site, respectively. In the 2013–2014 sampling year, summer dry weather A and B grades were up 10 percent from the previous year. Winter dry weather grades improved as well, with all locations earning A or B grades. However, all locations received F grades in wet weather. The City's wet weather 5-year average continues to be the worst in the State, with only 7 percent A or B grades.¹

After substantial rainfall (0.10 inch or more), high levels of bacteria from storm drains, rivers, and polluted runoff enter the ocean, and the City issues an advisory for beach-goers to avoid all ocean water contact for at least 72 hours after rainfall, per the County's regulations for all beaches. When a closure is required, the City of Long Beach posts closure notices on the beach and on the City's website.

Groundwater

Groundwater Hydrology. The County of Los Angeles overlies 15 groundwater basins, as established by the Los Angeles RWQCB Water Quality Control Plan (Basin Plan) for the Los Angeles region (1995, updated 2011). The Project site is located in the Coastal Plain of Los Angeles Groundwater Basin and overlies the West Coast Subbasin (Basin No. 4-11.03).² The West Coast Subbasin covers an area of 142 sq mi and is bound by the Ballona Escarpment to the north, the Newport-Inglewood Fault Zone to the east, and the Pacific Ocean and Palos Verdes Hills to the south and west. Groundwater recharge occurs primarily as a result of underflow from the Central Subbasin. Water spread in the Central Subbasin percolates into aquifers and eventually crosses through and over the Newport-Inglewood Fault Zone, supplementing the groundwater supply in the West Coast Subbasin. The general regional groundwater flow pattern is southward and westward from the Central Coastal Plain toward the Ocean.³

According to the geotechnical report prepared for the Project site, groundwater was encountered in boring samples at depths of 6 to 9 feet (ft) below the existing grade.⁴ However, fluctuations in

¹ Heal the Bay, *2013–2014 Beach Report Card*. Website: http://www.healthebay.org/sites/default/files/pdf/BRC_2014_WEB_.pdf (accessed June 6, 2014).

² California Department of Water Resources, *Groundwater Bulletin 118*, Coastal Plain of Los Angeles County Groundwater Basin, West Coast Subbasin, February 27, 2004.

³ Ibid.

⁴ MACTEC, *Report of Preliminary Geotechnical Investigation Proposed Belmont Plaza Olympic Pool Revitalization Project*. April 14, 2009.

groundwater levels may occur due to tidal fluctuations, variations in precipitation, ground surface topography, subsurface stratification, irrigation, and other factors that may not be easily identified.

Groundwater Quality. The West Coast Basin consists of recent alluvium that forms the semi-perched aquifer, the Bellflower aquitard, and the Gage aquifer. Regional groundwater beneath the Project site is believed to be affected by seawater intrusion. The first regional-occurring aquifer beneath the site is the Gage aquifer.

The general quality of groundwater within the Los Angeles Coastal Plain has been substantially degraded from background levels. The groundwater in the surrounding area has experienced seawater intrusion, which is currently under control in most areas. Groundwater in the lower aquifers of this basin is generally of good quality. However, the quality of groundwater in parts of the upper aquifers is degraded by seawater intrusion and organic pollutants from a variety of sources, such as leaking tanks and leaking crude oil pipelines.

The Basin Plan identifies the Central Basin of the Los Angeles Coastal Plain as having four existing beneficial uses listed below:

- MUN – Municipal and Domestic Supply;
- IND – Industrial Service Supply;
- PROC – Industrial Process Supply; and
- AGR – Agricultural Supply

Floodplains/Inundation Zones

According to the FEMA Federal Insurance Rate Map (FIRM) No. 06037C1970F (September 26, 2008), the eastern portion of the Project site is located within Zone A, Special Flood Hazard Area (SFHAs) subject to inundation by the 1-percent annual chance flood (see Figure 4.8.3). The western half of the Project site is located within Zone X, areas determined to be outside the 0.2-percent chance (500-year) floodplain.

Since the Project site abuts the beach and is adjacent to the Pacific Ocean, the Project site is located within the Tsunami Inundation Area, according to the Tsunami Inundation Map.¹ Damage from a tsunami wave generated from a large offshore earthquake also has the potential to occur in the Long Beach Harbor areas. To date, only the 1964 Alaska earthquake and a 1960 earthquake in Chile have caused tidal damage to the Long Beach area, which was limited to the impacts from tidal surges in the harbor areas.²

¹ California Emergency Management Agency, California Geological Survey, and University of Southern California. Tsunami Inundation Map. Website: http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/LosAngeles/Documents/Tsunami_Inundation_LongBeach_Quad_LosAngeles.pdf (accessed June 6, 2013).

² City of Long Beach General Plan, Seismic Safety Element, 1988. Website: http://www.lbds.info/planning/advance_planning/general_plan.asp (accessed June 6, 2014).



LSA

LEGEND

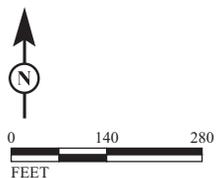
 - Project Site

 - SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD
 The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A - No Base Flood Elevations determined.

ZONE X - Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

FIGURE 4.8.3



SOURCE: Bing (c. 2010) and Federal Emergency Management Agency. Map Service Center Website, "Current FEMA Issued Flood Maps". <http://1.usa.gov/IEYQjB> Accessed 5/20/2013.

I:\CLB1302\G\2016\Floodplain Map.cdr (3/2/16)

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4.8.2 Regulatory Setting

Federal Policies and Regulations.

Clean Water Act. In 1972, the Federal Water Pollution Control Act (later referred to as the Clean Water Act [CWA]) was amended to require that the discharge of pollutants into waters of the United States from any point source be effectively prohibited unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. In 1987, the CWA was again amended to require that the United States Environmental Protection Agency (EPA) establish regulations for the permitting of storm water discharges (as a point source) by municipal and industrial facilities and construction activities under the NPDES permit program. The regulations require that Municipal Separate Storm Sewer System (MS4) discharges to surface waters be regulated by an NPDES permit.

The CWA requires states to adopt water quality standards for water bodies and have those standards approved by the EPA. Water quality standards consist of designated beneficial uses for a particular water body (e.g., wildlife habitat, agricultural supply, or fishing), along with water quality criteria necessary to support those uses. Water quality criteria are set concentrations or levels of constituents—such as lead, suspended sediment, and fecal coliform bacteria—or narrative statements that represent the quality of water that supports a particular use. Because California had not established a complete list of acceptable water quality criteria for toxic pollutants, EPA Region IX established numeric water quality criteria for toxic constituents in the form of the California Toxics Rule (CTR).

When designated beneficial uses of a particular water body are being compromised by water quality, Section 303(d) of the CWA requires identifying and listing that water body as impaired. Once a water body has been deemed impaired, a Total Maximum Daily Load (TMDL) must be developed for each impairing water quality constituent. A TMDL is an estimate of the total load of pollutants from point, nonpoint, and natural sources that a water body may receive without exceeding applicable water quality standards (often with a “factor of safety” included, which limits the total load of pollutants to a level well below that which could cause the standard to be exceeded). Once established, the TMDL is allocated among current and future dischargers into the water body.

National Flood Insurance Program. The National Flood Insurance Act of 1968 established the National Flood Insurance Program, which is based on the minimum requirements for floodplain management in the Federal Code of Regulations 44, Section 59-77, and is designed to minimize flood damage within SFHAs. FEMA is the agency that administrates the National Flood Insurance Program. SFHAs are defined as areas that have a 1-percent chance of flooding within a given year, also referred to as a 100-year flood. FIRMs were developed to identify areas of flood hazards within a community.

State Regulations.

Porter-Cologne Water Quality Control Act. The federal CWA places the primary responsibility for the control of water pollution and for planning the development and use of water resources with the states, although it does establish certain guidelines for the states to follow in developing their programs.

California's primary statute governing water quality and water pollution is the Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act). The Porter-Cologne Act grants the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) broad powers to protect water quality and is the primary vehicle for implementation of California's responsibility under the federal CWA. The Porter-Cologne Act grants the SWRCB and RWQCBs the authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites, and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, oil, or petroleum product.

Each RWQCB must formulate and adopt a water quality plan for its region. The regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State water policy. The Porter-Cologne Act also provides that an RWQCB may include in its region a regional plan with water discharge prohibitions applicable to particular conditions, areas, or types of waste.

California Coastal Act. The California Coastal Commission (Coastal Commission) is responsible for protecting water quality in coastal environments as defined under Sections 30230 and 30231 of the California Coastal Act (Coastal Act). The water quality provisions provide a broad basis for protecting coastal waters, habitats, and biodiversity associated with new development and redevelopment projects. To meet the objectives of Sections 30230 and 30231, the Coastal Commission supports a three-pronged approach to water quality management, which includes implementing site design, source control, and treatment control Best Management Practices (BMPs). New development projects that are within the Coastal Zone are required to apply for a Coastal Development Permit (CDP) through the Coastal Commission prior to construction. As part of the CDP process, projects must demonstrate water quality protection with the implementation of site design, source control, and treatment control BMPs.

Los Angeles Water Quality Control Plan (Basin Plan). The Los Angeles RWQCB has adopted a Basin Plan for its region of responsibility, which includes the City. The agency has delineated water resource area boundaries based on hydrological features. For purposes of achieving and maintaining water quality protection, specific beneficial uses have been identified for each of the hydrologic areas described in the Basin Plan. The Basin Plan also establishes implementation programs to achieve water quality objectives to protect beneficial uses and requires monitoring to evaluate the effectiveness of the programs. These objectives must comply with the State antidegradation policy (State Board Resolution No. 68-16), which is designed to

maintain high-quality waters while allowing some flexibility if beneficial uses are not unreasonably affected.

Beneficial uses of water are defined in the Basin Plan as those necessary for the survival or well-being of humans, plants, and wildlife. Examples of beneficial uses include drinking water supplies; swimming, industrial and agricultural water supply; and the support of freshwater and marine habitats and their organisms.

The Project site is located adjacent to, and runoff from the Project site ultimately flows into, the beach of Long Beach. The following list summarizes the beneficial uses for the beach of Long Beach as designated by the Los Angeles RWQCB:

- **Water Contact Recreation (REC-1):** Uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, waterskiing, skin and scuba diving, surfing, white water activities, fishing, or use of natural hot springs.
- **Noncontact Water Recreation (REC-2):** Uses of water for recreational activities involving proximity to water but not normally involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing, and aesthetic enjoyment in conjunction with the above activities.
- **Migration of Aquatic Organisms (MIGR):** Uses of water that support habitats necessary for migration, acclimatization between fresh and saltwater, or other temporary activities by aquatic organisms, such as anadromous fish.
- **Wildlife Habitat (WILD):** Uses of water that support terrestrial ecosystems, including, but not limited to, preservation and enhancement of terrestrial habitats, vegetation, wildlife (i.e., mammals, birds, reptiles, amphibians, invertebrates), and wildlife water and food sources.
- **Spawning, Reproduction, and/or Early Development (SPWN)** Uses of water that support high-quality aquatic habitats suitable for reproduction and early development of fish, most frequently for grunion species.
- **Commercial and Sport Fishing (COMM):** Uses of water for commercial or recreation collection of fish, shellfish, or other aquatic organisms.
- **Navigation (NAV):** Uses of water for shipping, travel, or other transportation by private, military, or commercial vessels.
- **Marine Habitat (MAR):** Uses of water that support marine ecosystems, including but not limited to, preservation or enhancement of marine habitats, vegetation such as kelp, fish, shellfish, or wildlife (e.g., marine mammals, shorebirds).
- **Shellfish Harvesting (SHELL):** Uses of water that support habitats suitable for the collection of filter-feeding shellfish (e.g., clams, oysters, and mussels) for human consumption, commercial, or sports purposes.

The Los Angeles RWQCB has designated narrative or numerical water quality objectives for all of its inland surface waters and enclosed bays and estuaries for the following parameters: ammonia; bacteria (coliform); bioaccumulation; biochemical oxygen demand (BOD);

biostimulatory substances; chemical constituents; chlorine; color; exotic vegetation; floating material; methylene blue activated substances (MBASs); mineral quality; nitrogen (nitrate, nitrite); oil and grease; dissolved oxygen; pesticides; pH; polychlorinated biphenyls (PCBs); radioactive substances; solid, suspended, or settleable solids; taste and odor; temperature; toxicity; and turbidity. These objectives are listed in Table 4.8.A. If these objectives are exceeded, the Los Angeles RWQCB can use its regulatory authority to require municipalities to reduce pollutant loads to the affected receiving waters. The Los Angeles RWQCB utilizes water quality criteria, in the form of “scientific information developed by the EPA regarding the effect a constituent concentration has on human health, aquatic life, or other uses of water,” to develop its water quality objectives.¹

The Los Angeles RWQCB employs water quality standards from the California Toxics Rule (40 Code of Federal Regulations [CFR] §131.38) for potentially toxic constituents, primarily trace (heavy) metals and organic compounds, to determine whether beneficial uses are affected by storm and dry weather runoff. The values represent the numeric limits in receiving waters that will protect the “presence of, as well as the uses of, both fresh and salt water organisms.”

That is, these values represent concentrations within a water body. The State has developed bacteriological standards to monitor water quality at public beaches. These are based on legislation adopted in 1999 (Assembly Bill 411) and are promulgated in the California Health and Safety Code, Section 115880. In the “Guidance for Beaches and Recreational Waters,” the bacteriological standards are defined in Appendix A, Article 4, Healthfulness. Table 4.8.A, Water Quality Standards and Benchmarks, provides a comparison of standards and benchmarks for concentrations of constituents in runoff or in receiving waters.

California Ocean Plan. The SWRCB has adopted a Water Quality Control Plan for point source discharges to ocean waters of California called the California Ocean Plan (Ocean Plan). With the exception of wildlife habitat, the Ocean Plan identifies the same beneficial uses as the Los Angeles Basin Plan (Basin Plan). The Ocean Plan also incorporates general requirements for the management of wastes discharged directly into the ocean, effluent quality requirements for waste discharges directly into the ocean, discharge prohibitions, and general provisions. The Ocean Plan is incorporated by reference into the Basin Plan.

The Ocean Plan identifies beneficial uses for the Pacific Ocean. The Project site is located adjacent to, and runoff from the Project site eventually flows into, the Pacific Ocean. The following list summarizes the beneficial uses for ocean waters of the State as designated by the Ocean Plan:

- **Industrial Service Supply (IND):** Uses of water for industrial activities that do not depend primarily on water quality including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well repressurization.

¹ Los Angeles RWQCB. Water Quality Control Plan, Los Angeles Region, 1995, updated 2011.

Table 4.8.A: Water Quality Standards and Benchmarks

Constituent	Basin Plan Objectives	California Toxics Rule (mg/L)¹	Assembly Bill 411²
Ammonia	Numeric objectives have only been established for COLD and WARM beneficial uses. Shall not be present at levels that, when oxidized to nitrate, pose a threat to groundwater.	N/A ³	N/A
Bacterial, Coliform	REC-1: Fecal coliform concentration shall not exceed a log mean of 200/100 milliliters (mL) (based on a minimum of not less than four samples for any 30-day period), nor shall more than 10 percent of samples collected during any 30-day period exceed 4,000/100 mL. SHELL: The median total coliform concentration throughout the water column for any 30-day period shall not exceed 70/100 mL, nor shall more than 10 percent of the samples collected during any 30-day period exceed 230/100 mL for a five-tube decimal dilution test or 330/100 mL when a three-tube decimal test is used.	N/A	Fecal coliform: 200/100 mL Total coliform: 1,000/100 mL
Bioaccumulation	Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels that are harmful to aquatic life or human health.	See levels for metals	N/A
Biological Oxygen Demand (BOD)	Waters shall be free of substances that result in increases in the BOD, which adversely affect beneficial uses.	N/A	N/A
Biostimulatory Substances	Waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.	N/A	N/A
Chemical Constituents	Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.	Includes pesticides and PCBs	N/A
Chemical Oxygen Demand (COD)	N/A	N/A	N/A
Chlorine, Total Residual	Chlorine residual shall not be present in surface water discharges at concentrations that exceed 0.1 mg/L and shall not persist in receiving waters at any concentration that causes impairment of beneficial uses.	N/A	N/A
Color	Waters shall be free of coloration that causes nuisance or adversely affects beneficial uses.	N/A	N/A
Total Copper	N/A	0.009	
Exotic Vegetation	Exotic vegetation shall not be introduced around stream courses to the extent that such growth causes nuisance or adversely affects beneficial uses.	N/A	N/A
Floating Material	Waters shall not contain floating materials, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.	N/A	N/A

Table 4.8.A: Water Quality Standards and Benchmarks

Constituent	Basin Plan Objectives	California Toxics Rule (mg/L)¹	Assembly Bill 411²
Total Lead	N/A	0.025	N/A
Methylene Blue Activated Substances (MBASs)	Waters shall not have MBAS concentrations greater than 0.5 mg/L in waters designated MUN.	N/A	N/A
Mineral Quality	No waterbody specific objectives	N/A	N/A
Nitrogen (Nitrate, Nitrite)	Waters shall not exceed 10 mg/L nitrogen as nitrate-nitrogen plus nitrite-nitrogen, 45 mg/L as nitrate, 10 mg/L as nitrate-nitrogen, or 1 mg/L as nitrite-nitrogen.		
Oil and Grease	Waters shall not contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water that cause nuisance or adversely affect beneficial uses.	N/A	N/A
Oxygen, Dissolved	SPWN: Waters shall not be depressed below 7 mg/L as a result of waste discharges.	N/A	N/A
Pesticides	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.	Chlordane: maximum concentrations, 2.4; continuous concentrations, 0.0043	N/A
pH	Inland water shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharges. Ambient pH levels shall not be changed more than 0.5 units from natural conditions as a result of waste discharge.	N/A	N/A
Total Phosphorus	N/A	N/A	N/A
Polychlorinated Biphenyls (PCBs)	Pass-through or uncontrollable discharges to waters, or at locations where the waste can subsequently reach waters, are limited to 70 pg/L (30-day average) for protection of human health and 14 ng/L (daily average) to protect aquatic life in inland fresh waters.	N/A	N/A
Radioactive Substances	Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life or that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.	N/A	N/A
Solid, Suspended, or Settleable Materials	Waters shall not contain suspended or settleable material in concentrations that cause nuisance or adversely affect beneficial uses.	N/A	N/A
Total Suspended Solids (TSS)	N/A	N/A	N/A

Table 4.8.A: Water Quality Standards and Benchmarks

Constituent	Basin Plan Objectives	California Toxics Rule (mg/L)¹	Assembly Bill 411²
Total Dissolved Solids (TDS)	N/A	N/A	N/A
Tastes and Odors	Waters shall not contain taste- or odor-producing substances in concentrations that impart undesirable tastes or odors to fish flesh or other edible aquatic resources, cause nuisance, or adversely affect beneficial uses.	N/A	N/A
Temperature	The natural receiving water temperature of all waters shall not be altered unless it can be demonstrated that such alteration in temperature does not adversely affect beneficial uses.	N/A	N/A
Toxicity	All waters shall be free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in, human, plant, animal, or aquatic life.	N/A	N/A
Turbidity	Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases in natural turbidity attributable to controllable water quality factors shall not exceed the following limits: <ul style="list-style-type: none"> • Where natural turbidity is between 0 and 50 National Turbidity Units (NTU), increases shall not exceed 20 percent. • Where natural turbidity is greater than 50 NTU, increases shall not exceed 10 percent. 	N/A	N/A
Total Zinc	N/A	0.12	N/A

Source: Los Angeles Regional Water Quality Control Board. Water Quality Control Plan, Los Angeles Region, 1995, updated 2011.

¹ Chronic toxicity values (over a 4-day period) in water with a hardness of 100 mg/L.

² Values are based on the log mean of at least five weekly samples during any 30-day sampling period.

³ Not applicable. No standard or benchmark listed.

mg/L = milligrams per liter

N/A = not applicable

pH = percentage of hydrogen (acidity level)

ng/L = nanograms per liter

pg/L = picograms per liter

- **Water Contact Recreation (REC-1):** Uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, waterskiing, skin and scuba diving, surfing, white water activities, fishing, or use of natural hot springs.
- **Noncontact Water Recreation (REC-2):** Uses of water for recreational activities involving proximity to water but not normally involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing, and aesthetic enjoyment in conjunction with the above activities.
- **Navigation (NAV):** Uses of water for shipping, travel, or other transportation by private, military, or commercial vessels.
- **Commercial and Sport Fishing (COMM):** Uses of water for commercial or recreation collection of fish, shellfish, or other aquatic organisms.
- **Preservation of Biological Habitats (BIOL):** Uses of water that support designated areas or habitats, such as Areas of Special Biological Significance (ASBS), established refuges, parks, sanctuaries, ecological reserves, or other areas where the preservation or enhancement of natural resources requires special protection.
- **Rare, Threatened, or Endangered Species (RARE):** Uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under State or federal law as rare, threatened, or endangered.

The Ocean Plan sets forth limits of water quality characteristics for ocean waters to ensure the reasonable protection of beneficial uses and the prevention of nuisance. Similar to the Basin Plan, the Ocean Plan has established water quality objectives for bacteriological, physical, chemical, radioactive, and biological characteristics. These objectives are listed in Table 4.8.B.

Clean Water Act, Section 303, List of Water Quality Limited Segments. Section 303(d) specifically requires the State to develop a list of impaired water bodies and subsequent numeric TMDLs for whichever constituents impair a particular water body. These constituents include inorganic and organic chemical compounds, metals, sediments, and biological agents. The TMDL is the total amount of a constituent that can be discharged while meeting water quality objectives and protecting beneficial uses. It is the sum of the individual load allocations for point-source inputs (e.g., an industrial plant), load allocations for nonpoint-source inputs (e.g., runoff from urban areas), and natural background, with a margin of safety.¹

¹ Los Angeles RWQCB. Water Quality Control Plan, 1995, updated 2011.

Table 4.8B: Water Quality Objectives

Constituent	Ocean Plan Objectives
Bacterial Characteristics	<p>REC-1: Total coliform density shall not exceed 1,000/100 mL; Fecal coliform density shall not exceed 200/100 mL; Enterococcus density shall not exceed 35/100 mL (based on geometric mean of the five most recent samples for any 30-day period).</p> <p>SHELL: The median total coliform density shall not exceed 70/100 mL, nor shall more than 10 percent of the samples collected during any 30-day period exceed 23/100 mL.</p>
Physical Characteristics	<ol style="list-style-type: none"> 1. Floating particulates and grease and oil shall not be visible. 2. The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface. 3. Natural light shall not be significantly reduced at any point outside the initial dilution zone as the result of the discharge of waste. 4. The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded.
Chemical Characteristics	<ol style="list-style-type: none"> 1. The dissolved oxygen concentrations shall not at any time be depressed more than 10 percent from that which occurs naturally, as the result of the discharge of oxygen-demanding waste materials. 2. The pH shall not be changed at any time more than 0.2 units from that which occurs naturally. 3. The dissolved sulfide concentration of waters in and near sediments shall not be significantly increased above that present under natural conditions. 4. The concentration of substances set forth in Table 1, Water Quality Objectives, in the Ocean Plan, in marine sediments shall not be increased to levels that would degrade indigenous biota. 5. The concentration of organic materials in marine sediments shall not be increased to levels that would degrade marine life. 6. Nutrient materials shall not cause objectionable aquatic growths or degrade indigenous biota. 7. Numerical Water Quality Objectives: Refer to Table 1, Water Quality Objectives, in the Ocean Plan, for specific numerical water quality objectives related to chemical constituents.

Source: State Water Resources Control Board and California Environmental Protection Agency. 2012. California Ocean Plan.

mL = milliliters

On November 12, 2010, the EPA approved California’s 2008–2010 Section 303(d) list of impaired waters and disapproved the omission of several water bodies and associated pollutants that meet federal listing requirements. The EPA identified additional water bodies and pollutants for inclusion on the State’s 303(d) list. The EPA provided public notice and the opportunity for public comment on our proposed additions that ended December 23, 2010. On October 11, 2011, the EPA issued its final decision regarding the waters, which the EPA added to the State’s 303(d) list.

The City of Long Beach City Beach is on the list of waters added to the 2010 303(d) list. This location is placed in the Category 5 criteria, which means that it is a water segment where standards

are not met and a TMDL is required, but not yet completed, for at least one of the listed pollutants. Long Beach City Beach is listed as impaired for indicator bacteria on the 2010 303(d) list of impaired waters.¹

TMDL Requirements. The Long Beach City Beaches were identified on the 2006 and 2010 303 (d) list of impaired waters as requiring a TMDL due to exceedances in concentrations of indicator bacteria. As such, the EPA approved the *Long Beach City Beaches and Los Angeles River Estuary Total Maximum Daily Loads for Indicator Bacteria* on March 26, 2012. This TMDL sets water quality standards for select indicator bacteria (e.g., E. coli, enterococci, total coliform, and fecal coliform). Concentrations of indicator bacteria are used to indicate the risk associated with the presence of fecal material and associated pathogens.² The anticipated TMDL completion date is 2019.

Clean Water Act, Section 402, National Pollutant Discharge Elimination System. Direct discharges of pollutants into waters of the United States are not allowed, except in accordance with the NPDES program established in Section 402 of the CWA.

General Construction Activity Storm Water Permit. The *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*, Order No. 2009-0009-DWQ, National Pollutant Discharge Elimination System No. CAS000002, as amended by Order Nos. 2010-0004-DWQ and 2012-0006-DWQ (Construction General Permit), adopted by the SWRCB, regulates construction activity that includes clearing, grading, and excavation resulting in soil disturbance of at least 1 ac of total land area. The Construction General Permit authorizes the discharge of storm water to surface waters from construction activities. It prohibits the discharge of materials other than storm water and authorized nonstorm-water discharges and all discharges that contain a hazardous substance in excess of reportable quantities established at 40 CFR 117.3 or 40 CFR 302.4, unless a separate NPDES Permit has been issued to regulate those discharges.

The Construction General Permit requires that all project designers for projects where construction activities will occur over more than 1 ac do the following:

- Complete a Risk Assessment to determine pollution prevention requirements pursuant to the three risk levels established in the General Permit;
- Eliminate or reduce nonstorm-water discharges to storm sewer systems and other waters of the nation;

¹ United States Environmental Protection Agency (EPA), Region 9 Water Program, 2010 Integrated Report (Clean Water Act Section 303(d) List / 305(b) Report) - Statewide. Website: http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml (accessed February 6, 2015).

² Los Angeles RWQCB. Long Beach City Beaches and Los Angeles River Estuary TMDLs for Indicator Bacteria. Website: http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/Established/Longbeach/finalTMDLs-LongBeachCityBeaches-LARiverEstuaryBacteria.pdf. (accessed February 9, 2015).

- Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) that specifies BMPs to reduce pollution in storm water discharges to the Best Available Technology Economically Achievable/Best Conventional Pollutant Control Technology (BACT/BCPCT) standards; and
- Perform inspections and maintenance of all BMPs.

In order to obtain coverage under the Construction General Permit, a project contractor must electronically file all Permit Registration Documents with the SWRCB prior to the start of construction. Permit Registration Documents must include:

- Notice of Intent (NOI)
- Risk Assessment
- Site map
- SWPPP
- Annual fee
- Signed certification statement

Typical BMPs contained in SWPPPs are designed to minimize erosion during construction, stabilize construction areas, control sediment, control pollutants from construction materials, and address post construction runoff quantity (volume) and quality (treatment). The SWPPP must also include a discussion of the program to inspect and maintain all BMPs.

Local Requirements

Construction and operation of the proposed Project is subject to requirements of the following local permits and regulations.

Groundwater Discharge Permit. On July 6, 2013, the Los Angeles RWQCB issued the *Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties* (Order No. R4-2013-0095, Permit No. CAG994004) (Groundwater Discharge Permit). This permit regulates discharges of treated and untreated groundwater generated from permanent or temporary project dewatering operations or other applicable wastewater discharges not specifically covered in other general or individual NPDES permits. It specifies the discharge prohibitions, effluent limitations and discharge specifications, receiving water limitations, and general provisions and compliance determination criteria for groundwater generated from permanent or temporary dewatering operations or other wastewater discharge not covered in other general or individual NPDES permits. Dischargers are required to collect and analyze representative groundwater samples for all constituents listed in the Groundwater Discharge Permit. Based on the results, dischargers would be required to provide treatment for any toxic compounds detected above the applicable screening levels. To obtain coverage under the Groundwater Discharge Permit, each permittee must submit an NOI to begin the application process.

Municipal NPDES Permit. The City of Long Beach is subject to the *Waste Discharge Requirements for Municipal Separate Storm Sewer System Discharges from the City of Long Beach* (Permit No. R4-2014-0024, NPDES No. CAS004003) (MS4 Permit), which was approved February 6, 2014, and became effective on March 28, 2014. This MS4 Permit supersedes Order No. 99-060 issued in 1999. To implement the requirements of the 1999 MS4 Permit, the City developed the Long Beach Storm Water Management Program (LBSWMP), a comprehensive program of practices and activities aimed at reducing or eliminating storm water pollutants from new development to the maximum extent practicable.

The 2014 MS4 Permit requires that the City develop a Watershed Management Program (WMP) to implement the requirements of the MS4 Permit on a watershed scale that will include customized strategies, control measures, and BMPs. WMPs shall be developed using the Los Angeles RWQCB's Watershed Management Areas (WMAs). The City can elect to collaborate with other MS4 permittees on the development of an Enhanced Watershed Management Program (EWMP) that will evaluate the multibenefits of regional projects and implement regional control measures and BMPs. The WMP or EWMP will include an evaluation of existing water quality conditions, identify water quality priorities within each WMA, select watershed control measures, and incorporate compliance schedules. The draft WMPs are due to the Los Angeles RWQCB by June 28, 2015, and will then be implemented upon final approval. In the interim period between the approvals of the WMPs, the LBSWMP will be in effect.

Currently, the MS4 permit requires that the project designer and/or contractor of all new development and redevelopment projects that fall under specific "priority" project categories must develop a Standard Urban Stormwater Mitigation Plan (SUSMP). Certain categories of development are considered "priority" because the Los Angeles RWQCB determined that they have the greatest potential to degrade water quality. The three categories of "priority" projects include: (1) 10 or more home subdivisions; (2) 100,000-square-foot (sf) or larger commercial developments; and (3) projects located adjacent to or directly discharging to environmentally sensitive areas. Because the proposed Project includes more than 100,000 sf of commercial development, it is considered a "priority" project. As stated above, the guidance documents from the previous MS4 Permit will be in effect until the approval of the final WMPs. Therefore, a SUSMP is required to be developed for the proposed Project.

Municipal Code Section 18.61. Section 18.61, NPDES and SUSMP Regulations, of the City Municipal Code provides regulations and gives legal effect to certain requirements of the MS4 Permit and the subsequent requirements of the SUSMP, mandated by the Los Angeles RWQCB. The intent of these regulations is to prohibit non-storm water discharges into the storm drain systems or receiving waters and to implement source control BMPs to prevent or reduce the discharge of pollutants into the storm water to the maximum extent practicable. Chapter 18.61.040 of the Municipal Code states that:

New development projects and redevelopment projects in the City subject to the design and implementation of post-construction controls to mitigate storm water pollution, prior to completion of the projects, shall apply if required in the NPDES and SUSMP Regulations Manual.

Municipal Code Section 18.74. Section 18.74, Low Impact Development Standards, of the City’s Municipal Code requires the use of low impact development (LID) standards in the planning and construction of development projects contained in the *LID Best Management Practices Manual*. Compliance with the LID standards is determined through a LID Plan review. The LID Plan must demonstrate compliance with the requirements for infiltration, capture and reuse, evapotranspiration, and/or treatment on site through the use of BMPs. The on-site storm water management techniques must be properly sized, at a minimum, to infiltrate, evapotranspire, and/or store for use without any storm water runoff leaving the site to the maximum extent feasible, for at least the volume of water produced by a 0.75-inch storm event, the 85th percentile 24-hour storm event, or the 85th percentile 24-hour runoff event determined as the maximized capture storm water volume for the area using a 48- to 72-hour draw down time, or the volume of annual runoff based on unit basin storage water quality volume to achieve 80 percent or more volume treatment. Section 18.74.050 of the Municipal Code requires that new development or redevelopment projects that do not demonstrate compliance with the LID requirements pay an off-site runoff mitigation fee.

4.8.3 Impact Significance Criteria

The impact significance criteria used for this analysis are based primarily on Appendix G of the *State California Environmental Quality Act (CEQA) Guidelines* and the City’s CEQA Checklist. The proposed Project may be considered to have a significant effect related to water quality if implementation would:

- Threshold 4.8.1:** Violate any water quality standards or waste discharge requirements;
- Threshold 4.8.2:** Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater level (e.g., the production rate of preexisting nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted);
- Threshold 4.8.3:** Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site;
- Threshold 4.8.4:** Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or a substantial increase in the rate or amount of surface runoff in a manner that would result in flooding on or off site;
- Threshold 4.8.5:** Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff;
- Threshold 4.8.6:** Otherwise substantially degrade water quality;

- Threshold 4.8.7:** Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- Threshold 4.8.8:** Place within a 100-year flood hazard area structures which would impede or redirect flood flows;
- Threshold 4.8.9:** Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; or
- Threshold 4.8.10:** Expose the same due to inundation by seiche, tsunami, or mudflow.

The Initial Study previously prepared for the proposed Project determined that the proposed Project would not have a significant impact with respect to Threshold 4.8.7, the placement of housing within a 100-year flood zone because the proposed Project does not include any residential components. Therefore, Threshold 4.8.7 is not addressed further in this Draft EIR.

CEQA Baseline. At the time the NOP was issued, the Project site contained both the Belmont Pool facilities and the outdoor temporary pool (opened in December 2013 to provide swimming facilities while the permanent facility was under construction). Although the site contained the former Belmont Pool building at the time of the NOP, the facility was subsequently demolished in February 2015 to alleviate an imminent public safety threat due to the seismically unsafe condition of the building.

The inclusion of the former building in the assessment of hydrology and water quality impacts is appropriate because the former facility was present on the site for approximately 45 years and represents the historic use of the site, and the historic drainage conditions for the site. The substantial evidence of recent historical use supports the determination that the Belmont Pool building as the baseline for hydrology and water quality impacts is appropriate.

4.8.4 Project Impacts

- Threshold 4.8.1:** Would the project violate any water quality standards or waste discharge requirements?
- and
- Threshold 4.8.6:** Would the project otherwise substantially degrade water quality?

Less than Significant Impact with Mitigation Incorporated.

Construction. Pollutants of concern during construction include sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals. During construction activities, it is anticipated that the Project site would be graded and/or excavated resulting in exposed soil. Consequently, there would be an increased potential for soil erosion compared to existing conditions. In addition, chemicals, liquid products, petroleum products (such as paints,

solvents, and fuels), and concrete-related waste may be spilled or leaked and have the potential to be transported via storm runoff into downstream receiving waters (i.e., beach in Long Beach and, ultimately, the Pacific Ocean).

As specified in Mitigation Measure 4.8.1, the proposed Project would comply with the requirements of the Construction General Permit. Under the Construction General Permit, the proposed Project would be required to prepare a SWPPP and implement Construction BMPs detailed in the SWPPP during construction activities to minimize erosion and prevent spills. Construction BMPs would include, but not be limited to, Erosion Control and Sediment Control BMPs designed to minimize erosion and retain sediment on site and Good Housekeeping BMPs to prevent spills, leaks, and discharge of construction debris and waste into receiving waters. The SWPPPs would be developed, and Construction BMPs selected and implemented, to target pollutants of concern during construction. The Construction BMPs would be designed to retain sediment and other pollutants on site, so they would not reach receiving waters.

Construction activities on the Project site could require excavation of up to 13 ft below the existing grade during the removal of the existing wooden piles and construction of the pools. Groundwater depths ranged from approximately 6 to 9 ft below existing grades. Due to the anticipated depth of excavation and the depth of groundwater, it is anticipated that groundwater would be encountered during excavation, which would require groundwater dewatering.

Groundwater may contain high levels of total dissolved solids and other constituents that could be introduced to surface waters. As specified in Mitigation Measure 4.8.2, any groundwater dewatering during excavation would be conducted in accordance with the Los Angeles RWQCB's Groundwater Discharge Permit, which would require testing and treatment (as necessary) of groundwater encountered during groundwater dewatering prior to release to the storm drain system. If dewatered groundwater cannot meet the discharge limitations specified in the Groundwater Discharge Permit, groundwater would be disposed of in the sewer system and would have to meet Los Angeles County Sanitation District (LACSD) discharges limits per the requirements set forth in LACSD's Wastewater Ordinance.¹

Implementation of Mitigation Measures 4.8.1 and 4.8.2, which require compliance with the General Construction Permit and the Groundwater Discharge Permit, including implementation of BMPs to target pollutants of concern, would reduce potential construction impacts related to violation of water quality standards or waste discharge requirements and degradation of water quality to less than significant levels.

Operation. Pollutants of concern during operation of the proposed on-site uses could potentially include pathogens, metals, nutrients, pesticides, organic compounds, sediment, trash and debris, oxygen-demanding substances, and oil and grease. In the existing condition, the Project site consists of approximately 2.1 ac of impervious surface area and approximately 3.7 ac of pervious surface. In the proposed Project condition, the Project site would consist of approximately 1.6 ac of impervious surface area and approximately 4.2 ac of pervious surface. The proposed Project

¹ Los Angeles County Sanitation District (LACSD). Wastewater Ordinance. April 1, 1972 amended July 1, 1998. Website: http://www.lacsd.org/wastewater/industrial_waste/iwordinances/wastewater_ordinance.asp (accessed February 10, 2015).

would, therefore, result in a permanent decrease in impervious surface area of approximately 0.5 ac and an increase in pervious area of approximately 0.5 ac. A decrease in impervious area would decrease the volume of runoff during a storm.

In accordance with the requirements of the LBSWMP and the MS4 Permit, new development and significant redevelopment projects must incorporate site design and source control BMPs to address post-construction storm water runoff management. In addition, new developments and redevelopment projects meeting one of the three categories (designated “Priority Projects”) must implement applicable source control BMPs and treatment control BMPs on the site. Selection of treatment control BMPs is based on the pollutants of concern for the specific Project site and the BMP’s ability to effectively treat those pollutants, in consideration of the site conditions and constraints. Further, new development and redevelopment projects must develop a project-specific SUSMP that describes the type of BMPs chosen for the Project site, as well as include operation and maintenance requirements for all structural treatment control BMPs.

As specified in Mitigation Measure 4.8.3, an SUSMP would be prepared for the proposed Project. The Site Design, Source Control, and Treatment BMPs specified in the Final SUSMP would be incorporated into the design of the proposed Project to treat pollutants of concern in storm water runoff prior to discharge into the storm drain system. Site Design BMPs are BMPs that reduce runoff or pollutants at the source through intentional use of landforms and materials. Source Control BMPs are measures that focus on reducing or eliminating runoff and controlling sources of pollutants during operation of the Proposed Project. Treatment BMPs utilize treatment mechanisms to remove pollutants that have entered storm water runoff. The BMPs would be incorporated into the design of the proposed Project and would treat storm water runoff from the Project site.

As shown in Figure 4.8.4, the proposed treatment BMPs are anticipated to include biofiltration swales (bioswales), filtration strip, an underground detention basin, and a drywell. Bioswales are vegetated channels that convey storm water and remove pollutants by filtration through the grass, sedimentation, adsorption to soil particles, and infiltration through the soil. Filtration strips are channels that convey storm water and remove pollutants by sedimentation and adsorption to soil particles, and infiltration through the soil. Detention basins are designed to reduce sediment and particulate loading in storm water runoff. Water is temporarily detained in the basin to allow sediment and particulates to settle out before the runoff is discharged to receiving waters. A drywell is an underground structure designed specifically for infiltration of stormwater.

As specified in Mitigation Measure 4.8.3, an SUSMP would be developed for the proposed Project, which would include the BMPs that would be consistent with the requirements of the City’s *Low Impact Development (LID) Best Management Practices (BMP) Design Manual* and would target pollutants of concern from the Project site. In addition, the SUSMP would include an operations and maintenance plan for the bioswales, drywell, filtration strip, and an underground detention basin to ensure their long-term performance. Implementation of BMPs that target pollutants of concern in runoff from the Project site, as required by Mitigation Measure 4.8.3, would reduce potential operational impacts related to violation of water quality standards or waste discharge requirements and degradation of water quality to less than significant levels.

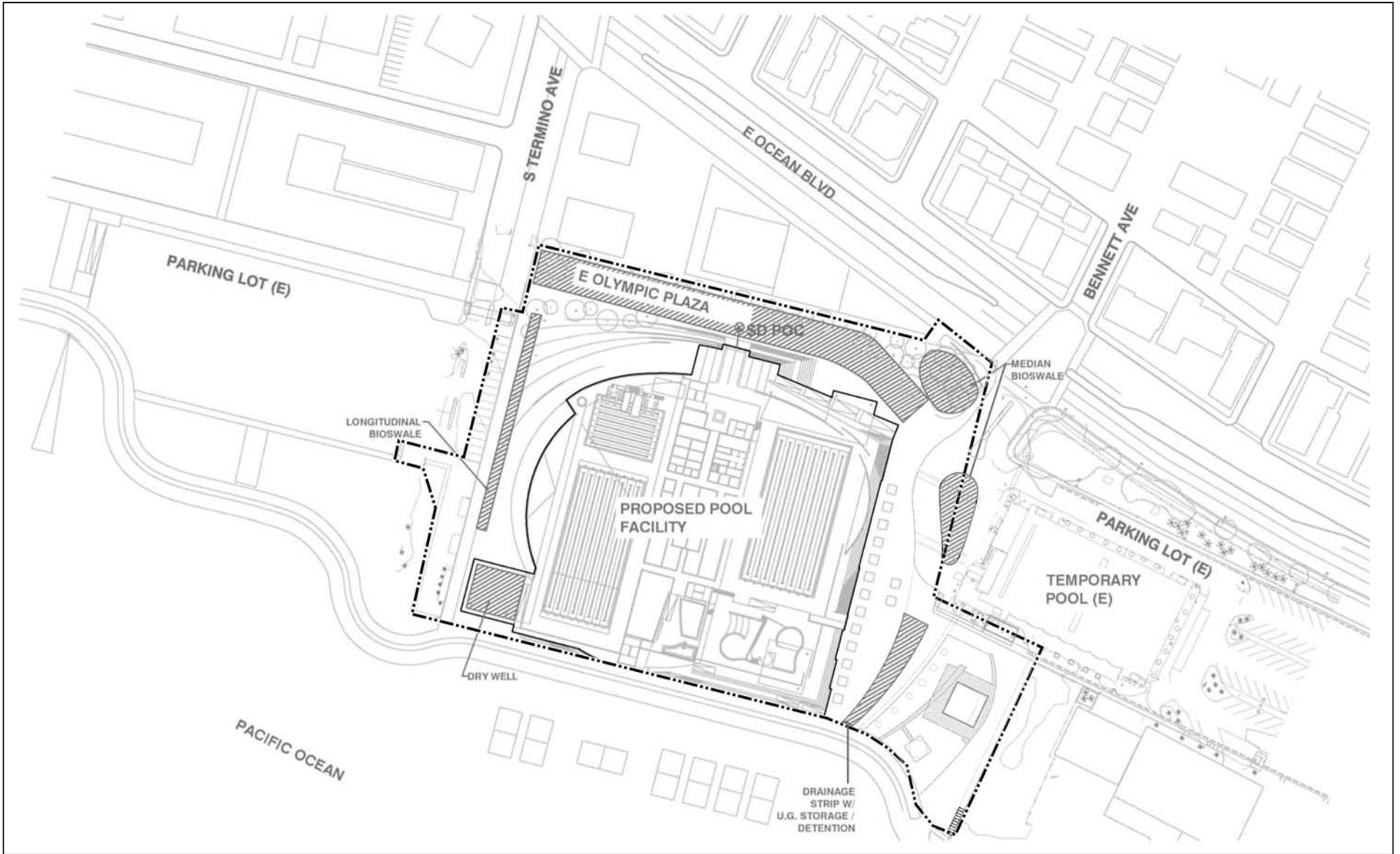
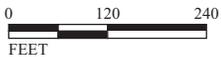


FIGURE 4.8.4

LSA

- Project Site



SOURCE: Hastings+Chivetta

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Threshold 4.8.2: **Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater level (e.g., the production rate of preexisting nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?**

Less than Significant Impact.

Construction. Due to the depth of groundwater (6 to 9 ft below existing grades) and the anticipated depth of excavation (up to 13 ft below existing grade), it is anticipated that groundwater dewatering would be required during removal of the existing wooden piles and construction of the pools. However, groundwater dewatering activities would be temporary, and the volume of groundwater removed would not be substantial. In addition, grading and construction activities would compact soil, which can decrease infiltration during construction. However, construction activities would be temporary, and the reduction in infiltration would not be substantial. Therefore, construction of the proposed Project would not substantially deplete groundwater or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Construction impacts related to groundwater supplies would be less than significant, and no mitigation is required.

Operation. Operation of the proposed Project would not require groundwater extraction. The proposed Project would not directly utilize local groundwater but continue to use water from the local municipal supply. Additionally, the proposed Project would replace the existing facility with a similar facility. As discussed previously, the proposed Project would decrease impervious surface by 0.5 ac, which would increase infiltration. As a result, the proposed Project would not constitute interference with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Operational impacts related to groundwater supplies would be less than significant, and no mitigation is required.

Threshold 4.8.3: **Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site?**

and

Threshold 4.8.4: **Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or a substantial increase in the rate or amount of surface runoff in a manner that would result in flooding on or off site?**

Less than Significant Impact with Mitigation Incorporated.

Construction. During construction activities on the Project site, there is the potential for the drainage pattern to be altered temporarily. As previously described, the Project site would be

graded and excavated soil would be exposed, and there would be an increased potential for soil erosion and flooding compared to existing conditions. During a storm event, soil erosion and sedimentation could occur at an accelerated rate. In addition, grading and construction activities would compact soil, which can increase runoff during construction. There are no on-site streams or rivers; therefore, the proposed Project would not alter the course of a stream or river.

Mitigation Measure 4.8.1 requires preparation of a SWPPP to identify Construction BMPs to be implemented as part of the proposed Project to reduce impacts to water quality and drainage during construction, including those impacts associated with soil erosion, siltation, and increased runoff. Construction BMPs would include, but not be limited to, Erosion Control and Sediment Control BMPs designed to minimize erosion sedimentation. The SWPPP would be developed, and Construction BMPs selected and implemented, to target pollutants of concern during construction. Implementation of Mitigation Measure 4.8.1, which requires compliance with the requirements of the Construction General Permit and implementation of BMPs during construction, would reduce potential construction impacts related to erosion, siltation, and flooding to less than significant levels.

Operation. The proposed Project would change on-site drainage patterns by adding impervious surface areas and structures. However, flows from the Project site would continue to discharge to the existing off-site storm drain system. There are no on-site streams or rivers; therefore, the proposed Project would not alter the course of a stream or river.

The proposed Project would decrease the overall impervious area by 0.5 ac and increase the pervious area by 0.5 ac, resulting in an increase in filtration. The proposed Project would also include a comprehensive drainage system to convey on-site storm flows, including on-site detention and infiltration BMPs. A detailed hydrology report would be prepared for the proposed Project to ensure that the on-site storm drain facilities are appropriately sized to prevent on-site or off-site flooding (refer to Mitigation Measure 4.8.4). In the proposed condition, the impervious surface areas would not be prone to erosion or siltation. Treatment BMPs, including biofiltration swales (bioswales), filtration strip, an underground detention basin, and a drywell, are anticipated to be incorporated into the proposed Project design to convey storm water and minimize on-site erosion and siltation that could reach downstream receiving waters (refer to Mitigation Measure 4.8.3).

Therefore, with implementation of Mitigation Measure 4.8.3, which requires the implementation of Treatment BMPs to control runoff, and Mitigation Measure 4.8.4, which requires the development of a hydrology report to ensure flows would not exceed existing storm drain facilities, the proposed Project would not contribute to an increase in downstream erosion, siltation, or flooding.

Threshold 4.8.5: Would the project create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

Less than Significant Impact with Mitigation Incorporated.

Construction. As discussed above, construction of the proposed Project has the potential to introduce pollutants into the storm water drainage system from erosion, siltation, and accidental spills. In addition, grading and construction activities would compact soil, which can increase runoff during construction. However, as specified in Mitigation Measure 4.8.1, the Construction General Permit requires preparation of a SWPPP to identify Construction BMPs to be implemented during the proposed Project construction to reduce impacts to water quality, including those impacts associated with soil erosion, siltation, spills, and increased runoff.

Due to the depth of groundwater (6 to 9 ft below existing grades) and the anticipated depth of excavation (up to 13 ft below existing grade), it is anticipated that groundwater dewatering would be required during the removal of the existing wooden piles and construction of the pools. However, groundwater dewatering activities would be temporary, and the volume of groundwater removed would not be substantial. As specified in Mitigation Measure 4.8.2, any groundwater dewatering during excavation would be conducted in accordance with the Los Angeles RWQCB's Groundwater Discharge Permit, which would require testing and treatment (as necessary) of groundwater encountered during groundwater dewatering prior to release to the storm drain system. If dewatered groundwater cannot meet the discharge limitations specified in the Ground Water Discharge Permit, groundwater would be disposed of in the sewer and would have to meet the LACSD discharge limits.

With implementation of Mitigation Measures 4.8.1 and 4.8.2, which require compliance with the General Construction Permit and the Groundwater Discharge Permit, construction impacts related to exceeding the capacity of, and providing additional sources of polluted runoff to, storm water drainage systems would be reduced to less than significant levels.

Operation. As discussed above, the proposed Project would decrease impervious surface area by 0.5 ac and increase the pervious area by approximately 0.5 ac, which would decrease the volume and velocity of runoff on the site. The proposed Project would also include a comprehensive drainage system to convey on-site storm flows. During design of the proposed Project, a detailed hydrology report would be prepared to ensure that the on-site storm drain facilities are appropriately sized to prevent on-site flooding (Mitigation Measure 4.8.4). In addition, the proposed Project would include Treatment BMPs, including biofiltration swales (bioswales), filtration strip, an underground detention basin, and a drywell to convey storm water and reduce potential pollutants and the volume of runoff reaching downstream receiving waters (refer to Mitigation Measure 4.8.3).

Therefore, with implementation of Mitigation Measures 4.8.3 which requires the implementation of Treatment BMPs to control runoff, and Mitigation Measure 4.8.4, which requires the development of a hydrology report to ensure flows would not exceed existing storm drain facilities, operational impacts related to exceedance of the capacity of, and providing additional

sources of polluted runoff to, storm water drainage systems would be reduced to a less than significant level.

Threshold 4.8.8: Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Less than Significant with Mitigation Incorporated. According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 06037C1970F (September 26, 2008), the eastern half of the Project site is located within Zone A, a Special Flood Hazard Area (SFHA) subject to inundation by the 1-percent annual chance flood, and the western half of the Project site is located within Zone X, areas determined to be outside the 0.2-percent chance (500-year) floodplain (see Figure 4.8.3). The City is a participant in the National Flood Insurance Program (NFIP), which allows City property owners to obtain federally backed flood insurance.¹ FEMA requires that all projects within Zone A enforce NFIP floodplain management regulations and purchase mandatory flood insurance. The regulations require that a project not increase the base flood elevation of a 100-year floodplain more than 1 ft. During subsequent engineering and design phase of the proposed Project, detailed analysis would be conducted to ensure that the design specifically addresses floodplain issues. In addition, implementation of Mitigation Measure 4.8.5 would require a floodplain report to be prepared in order to reduce impacts to the floodplain. Compliance with City and FEMA regulations and implementation of Mitigation Measure 4.8.5 would ensure that the proposed Project would not expose people or structures to the risk of flooding, create floodplains, or result in an increase in the base flood elevation. Therefore, impacts associated with flood hazard areas would be less than significant.

Threshold 4.8.9: Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less than Significant Impact. Dam failure is defined as the structural collapse of a dam that releases the water stored in a reservoir behind the dam. A dam failure is usually the result of the age of the structure, inadequate spillway capacity, or structural damage caused by an earthquake or flood. Three flood control dams lie upstream of the City: Sepulveda Basin, Hansen Basin, and Whittier Narrows Basin. Sepulveda and Hansen Basins lie more than 30 mi upstream from where the Los Angeles River passes through the City, which is north of the Project site. According to the Sepulveda and Hansen Dam Failure Inundation Maps,² the Project site is not located within the dam inundation area. In addition, flood waters from these dam failures are expected to dissipate before reaching the City, due to low and flat ground and their distances from the City.

¹ City of Long Beach, Public Works. 2015. Flood Hazards/Flood Zone Information. Website: <http://www.longbeach.gov/pw/engineering/floodzone.asp#Building in a Flood Zone> (accessed February 10, 2015).

² City of Long Beach. 2004. City of Long Beach Natural Hazards Mitigation Plan.

The Project site is located within the dam inundation area for the Whittier Narrows Dam.¹ According to the U.S. Army Corps of Engineers, Dam Safety Program² (Corps 2015), Whittier Narrows Dam received a Dam Safety Action Class II rating in December 2008. This rating is assigned to dams where failure could begin during normal operations or be initiated as the consequence of a natural event, such as an earthquake. This classification indicates that the likelihood of failure, prior to remediation, is too high to assure public safety, or that the combination of life or economic consequences with probability of failure is very high. However, because of the project site's location at the furthest point away from the Whittier Narrows Dam within the inundation area, most of the flooding would dissipate by the time it reaches the Project site. In addition, the City would have ample time to notify onsite users to evacuate and onsite users would have ample time to evacuate before waters reached the project site. Additionally, the Project does not propose the development of habitable structures onsite, thereby further minimizing the risk to life and property in the event of a dam failure. Furthermore, the United States Army Corps of Engineers has implemented the following Interim Risk Reduction Measures to reduce impacts to life and property in the event of dam failure: remote monitoring, inspection and monitoring, flood mapping, updating the Emergency Action Plan annually, inspecting toe drain and gallery, and initiating a Dam Safety Modification Study. The City has also developed emergency preparedness plans that would help the public be prepared for these types of emergency situations. In addition, the County of Los Angeles has regional catastrophic preparedness planning and regional evacuation routes. Therefore, because the City and County have implemented mitigation plans, emergency preparedness plans, and evacuation routes, impacts associated with the failure of a dam or levee would be less than significant, and no mitigation is required.

Threshold 4.8.10: Would the project result in inundation by seiche, tsunami, or mudflow?

Less than Significant Impact. Seiching is a phenomenon that occurs when seismic groundshaking induces standing waves (seiches) inside enclosed bodies of water, including lakes and reservoirs. Such waves can flood adjacent properties. According to the *Geotechnical Evaluations* (Appendix E) prepared for the proposed Project, the site is not located in the vicinity of any large bodies of water that could adversely affect the site in the event of earthquake-induced seiches. Therefore, the risk associated with possible seiche waves is not considered a potential constraint or a potentially significant impact of the proposed Project, and no mitigation is necessary.

Tsunamis are generated wave trains generally caused by tectonic displacement of the sea floor associated with shallow earthquakes, sea floor landslides, rock falls, and exploding volcanic islands. The proposed Project is located adjacent to the beach and the Pacific Ocean and is within a tsunami inundation zone.³ Up to 900 patrons are anticipated as part of typical daily operation of the Belmont Pool. Although there could be an increase in visitors to the site during special events, the proposed Project is replacing an existing use and would not create a new risk. Additionally, the proposed

¹ City of Long Beach. 2015. City of Long Beach Natural Hazards Mitigation Plan.

² United States Army Corps of Engineers Los Angeles District. 2015. Website: <http://www.spl.usace.army.mil/Media/FactSheets/tabid/1321/Article/477341/dam-safety-program.aspx>; (accessed August 13, 2015).

³ California Emergency Management Agency, California Geological Survey, and University of Southern California. 2009. Tsunami Inundation Map for Emergency Planning Long Beach Quadrangle. Website: http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/LosAngeles/Documents/Tsunami_Inundation_LongBeach_Quad_LosAngeles.pdf (accessed February 10, 2015).

Project would not increase the risk of a tsunami occurring. Furthermore, as stated above, the City has implemented the 2015 Natural Hazards Mitigation Plan for the purpose of protecting the lives, property, and facilities of citizens, employees, businesses, industry, infrastructure, and the environment from natural hazards. In addition, the County of Los Angeles has developed regional catastrophic preparedness planning and regional evacuation routes. Therefore, because the proposed Project is not introducing a new risk to tsunami exposure and with the implementation of the Natural Hazards Mitigation Plan, emergency preparedness plans, and the County of Los Angeles regional catastrophic plans, the risks associated with tsunamis are considered less than significant, and no mitigation is required.

Mudslides and mudflows are described as a shallower type of slope failure, usually affecting the upper soil mantle or weathered bedrock underlying natural slopes and triggered by surface or shallow subsurface saturation. A typical mudslide or mudflow is a failure of the upper 4 ft of saturated hillside material. As stated in the *Geotechnical Evaluations*, the Project site is relatively level and the absence of nearby slopes precludes any slope stability hazards. Furthermore, the site is not in a state of California Earthquake-Induced Landslide Hazard Zone. Therefore, the proposed Project would result in less than significant impacts related to exposure of people or structures to risk of loss, injury, or death involving flooding as a result of inundation by mudflow, and no mitigation is required.

4.8.5 Cumulative Impacts

The cumulative study area for hydrology and water quality is the Los Cerritos Channel and Alamitos Bay WMA. This is considered the cumulative study area because it includes drainage from all the areas that lead to Alamitos Bay. This area is essentially built out; therefore, future development would involve redevelopment of existing properties. Each of the cumulative projects, individually and cumulatively, could potentially increase the volume of storm water runoff and contribute to pollutant loading in storm water runoff reaching both the City's storm drain system and the San Gabriel River, and ultimately the Pacific Ocean, resulting in cumulative impacts to hydrology and surface water quality. However, as with the proposed Project, each of the cumulative projects would be subject to NPDES and MS4 Permit requirements for both construction and operation. Each project would be required to develop a SWPPP and SUSMP that target site-specific pollutants of concern and would be evaluated individually to determine appropriate BMPs to minimize impacts to surface water quality. Furthermore, since the Los Cerritos Channel and Alamitos Bay WMA is along the Pacific Ocean, there is the potential for cumulative projects, individually and cumulatively, to result in an encroachment into the 100-year flood zone, similar to the proposed Project. However, as with the proposed Project, each of the cumulative projects would be required to comply with City and FEMA regulations and prepare a Floodplain Report during final design to address any potential impacts to the floodplain, and if required, reduce those impacts. In addition, the City Development Services Director reviews all development projects on a case-by-case basis to ensure that sufficient local and regional drainage capacity is available. Thus, the proposed Project's contribution to cumulative impacts to hydrology and water quality would be less than significant.

4.8.6 Level of Significance Prior to Mitigation

Construction and operational impacts related to groundwater recharge and flooding due to failure of a dam or levee would be less than significant. There would be no potential construction or operational

impacts related to placement inundation by seiche, tsunami, or mudflow. In addition, cumulative impacts to hydrology and water quality would be less than significant.

Construction and operational impacts related to violation of water quality standards and waste discharge requirements; degradation of water quality; on- or off-site erosion, siltation, and flooding; exceeding the capacity of or providing additional sources of polluted runoff to the storm water drainage system; and placement of structures within a 100-year floodplain would be potentially significant prior to mitigation.

4.8.7 Mitigation Measures

The following measures are required actions of the proposed Project that would reduce impacts to hydrology and water quality below levels of significance.

Mitigation Measure 4.8.1: Construction General Permit. Prior to issuance of a grading permit, the City of Long Beach (City) shall obtain coverage for the proposed Project under the State Water Resources Control Board National Pollutant Discharge Elimination System *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities* (Order No. 2009-0009-DWQ, Permit No. CAS000002), as amended by Order Nos. 2010-0004-DWQ and 2012-0006-DWQ (Construction General Permit), or subsequent issuance. For projects with a disturbed area of 5 or more acres, a Storm Water Pollution Prevention Plan (SWPPP) with construction Best Management Plans (BMPs) is required to be submitted to both the Los Angeles Regional Water Quality Control Board (RWQCB) and the City.

The City shall provide the Waste Discharge Identification Numbers to the Development Services Director to demonstrate proof of coverage under the Construction General Permit. A SWPPP shall be prepared and implemented for the proposed Project in compliance with the requirements of the Construction General Permit. The SWPPP shall identify construction BMPs to be implemented to ensure that the potential for soil erosion and sedimentation is minimized and to control the discharge of pollutants in storm water runoff as a result of construction activities.

Mitigation Measure 4.8.2: Dewatering During Construction Activities. During project construction, the City of Long Beach Development Services Director, or designee, shall ensure that any dewatering activities during construction shall comply with the requirements of the *Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties* (Order No. R4-2013-0095, Permit No. CAG994004) (Groundwater Discharge Permit) or subsequent permit. This Groundwater Discharge Permit

shall include submission of a Notice of Intent (NOI) for coverage under the permit to the Los Angeles RWQCB at least 45 days prior to the start of dewatering and compliance with all applicable provisions in the permit, including water sampling, analysis, and reporting of dewatering-related discharges. If dewatered groundwater cannot meet the discharge limitations specified in the Groundwater Discharge Permit, a permit shall be obtained from the Los Angeles County Sanitation District (LACSD) to discharge groundwater to the sewer per LACSD's Wastewater Ordinance.

Mitigation Measure 4.8.3

Standard Urban Stormwater Mitigation Plan. Prior to issuance of grading permits, the City shall submit a Final Standard Urban Stormwater Mitigation Plan (SUSMP) for the proposed Project to the Development Services Director for review and approval. Project-specific site Design, Source Control, and Treatment Control BMPs contained in the Final SUSMP shall be incorporated into final design. The BMPs shall be consistent with the requirements of the *Low Impact Development (LID) Best Management Practices (BMP) Design Manual*. Additionally, the BMPS shall be designed and maintained to target pollutants of concern and reduce runoff from the Project site. The SUSMP shall include an operations and maintenance plan for the prescribed Treatment Control BMPs to ensure their long-term performance.

Mitigation Measure 4.8.4

Hydrology Reports. Prior to issuance of grading permits, the City shall submit a final hydrology report for the proposed Project to the City Development Services Director, or designee, for review and approval. The hydrology report shall demonstrate, based on hydrologic calculations, that the proposed Project's on-site storm conveyance and detention and infiltration facilities are designed in accordance with the requirement of the Los Angeles County Department of Public Works Hydrology Manual.

Mitigation Measure 4.8.5

Floodplain Report. During final design, the Project engineer shall prepare and submit a floodplain/hydrology report to the City Development Services Director, or designee, to address any potential impacts to the floodplain and, if required, reduce those impacts. The report shall comply with City and Federal Emergency Management Agency (FEMA) regulations and shall not increase the base flood elevation by more than 1 foot. Detailed analysis shall be conducted to ensure that the Project design specifically addresses floodplain issues so that the proposed Project complies with local and FEMA regulations on floodplains.

4.8.8 Significant Unavoidable Adverse Impacts

With implementation of the mitigation measures identified above, the proposed Project would not result in significant unavoidable adverse impacts related to Hydrology and Water Quality.

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4.9 LAND USE

This section describes the existing land uses on the proposed Belmont Pool Revitalization Project (proposed Project) site and in its vicinity and evaluates the compatibility of the proposed Project with surrounding land uses and relevant policy and planning documents. The consistency analysis in this section was prepared in compliance with the *State California Environmental Quality Act (CEQA) Guidelines* Section 15125(d). Information presented in this section is based on information provided in the City of Long Beach (City) General Plan; Zoning Code (Title 21); the City Parks, Recreation, and Marine Strategic Plan; and the Local Coastal Program.

Scoping Process

The City distributed the first Notice of Preparation (NOP) for the Draft Environmental Impact Report (EIR) from April 18 to May 17, 2014. Three comment letters were received in response to this NOP. However, due to changes in the proposed Project, the City re-issued and recirculated a revised NOP for the Draft EIR between April 9 and May 8, 2014. The City received five comment letters in response to the reissued NOP during the public review period (refer to Appendix A for copies of these comment letters, as well as the NOP and Initial Study [IS] prepared for the proposed Project). No comment letters raised issues regarding land use and planning.

4.9.1 Methodology

The impact analysis of this Land Use section considers the physical effects of the proposed Project related to land use compatibility (e.g., air quality, aesthetics, noise, and circulation) and considers whether or not there are any potential inconsistencies of the proposed Project with regard to planning documents from the City and other agencies with applicable plans or policies. Regulations and policies from the City's General Plan and Local Coastal Program are also discussed in applicable topical sections of the Draft EIR, where policies related to physical effects are addressed. Table 4.9.A lists relevant local programs, plans, and policies addressed in this Draft EIR and references where further discussion of each plan can be found in Chapter 4.0 of this Draft EIR.

Land use impacts are assessed based on physical effects related to land use compatibility and consistency with adopted plans and regulations. Specifically, this section of the Draft EIR addresses the potential environmental impacts related to the following:

- **Land Use**
 - On-site land uses
 - Adjacent land uses
- **Plans and Regulations**
 - California Coastal Act of 1976 (Coastal Act)
 - City of Long Beach Local Coastal Program (LCP)
 - City of Long Beach General Plan

Table 4.9.A: Consistency with California Coastal Act Policies

California Coastal Act Policies	Discussion/Analysis of the Proposed Project
<p>Section 30210: In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs, and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.</p>	<p>Consistent. The proposed Project provides for enhanced public safety needs through the reconstruction of the Belmont Pool facilities. The proposed Project includes installation of ADA-compliant facilities, including ramp access, thereby increasing public access and improving public safety. Belmont Pool has been located in the coastal zone for approximately 45 years and there is community support to continue and maintain the uses at this location. The pool complex has previously and would continue to remain open to the public. Classes and other programs offered at the facility would continue to serve various populations including children, youth, and seniors. Therefore, the proposed Project would be consistent with Coastal Act Section 30210.</p>
<p>Section 30211: Development shall not interfere with the public’s right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.</p>	<p>Consistent. The proposed Project would not interfere with the public’s right of access to the sea or beach. The proposed Project would replace and upgrade the previous pool facilities and would provide additional access through the installation of new modern facilities. The proposed Project would maintain the existing coastal access for the public, and the new facilities would serve local and regional visitors and enhance the existing public recreational opportunities. Therefore, the proposed Project would be consistent with Coastal Act Section 30211.</p>
<p>Section 30212.5: Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be distributed throughout an area as to mitigate against the impacts, social and otherwise, of overcrowding or overuse by the public of any single area.</p>	<p>Consistent. Parking for the proposed Project would continue to be provided by the two existing pay lots adjacent to the Project site: (1) the Belmont Veteran’s Memorial Pier Parking Lot (Pier Parking Lot) northwest of the pool facility; and (2) the Beach Parking Lot (Beach Parking Lot) southeast of the pool. Both lots contain an approximate total of 1,050 public parking spaces. No additional parking is proposed. Facilities associated with the proposed Project are not located in close proximity to similar recreational facilities and the proposed Project would replace a previous use that has not induced substantial overcrowding or overuse. As discussed in Section 4.13, Transportation and Traffic, of this Draft EIR, unless special events are held at both the indoor and outdoor pools simultaneously, the total number of spectators for the proposed Project is expected to be similar to the baseline conditions of the existing pool facility. Additionally, any event with more than 450 spectators would be considered a large special event that would require an Event Traffic Management Plan (Mitigation Measure 4.13.1). This plan may include active traffic management and/or off-site parking and shuttles. Therefore, the proposed Project would be consistent with Coastal Act Section 30212.5.</p>

Table 4.9.A: Consistency with California Coastal Act Policies

California Coastal Act Policies	Discussion/Analysis of the Proposed Project
<p>Section 30213: Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.</p> <p>The commission shall not: (1) require that overnight room rentals be fixed at an amount certain for any privately owned and operated hotel, motel, or other similar visitor-serving facility located on either public or private lands; or (2) establish or approve any method for the identification of low or moderate income persons for the purpose of determining eligibility for overnight room rentals in any such facilities.</p>	<p>Consistent. Coastal recreation uses in the vicinity would remain available to the public, for example, sightseeing on the pier, bicycle access at the proposed Project site, and other passive beach activities. The proposed Project facility would be accessible to the public for a nominal fee and as stated above, classes and other programs offered at the facility would serve various populations including children, youth, and seniors. Various swim meets and competitions will be hosted at the facility and such events would be accessible for the public to attend at a nominal charge anticipated to range from \$3 to \$15 depending on the event. These operational characteristics are consistent with the operational characteristics of the former Belmont Pool facility. No substantial changes related to public recreation are anticipated after Project completion. Therefore, the proposed Project would be consistent with Coastal Act Section 30213.</p>
<p>Section 30220: Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.</p>	<p>Consistent. A recreational pool is not coastal-dependent, however the Belmont Pool facilities have been located in the Coastal Zone for approximately 45 years, and there is community support to continue such uses at this location. The pool complex has and would continue to remain open to the public, and classes and other programs would serve various populations including children, youth, and seniors. In addition, the location of the pool facilities at the beach encourages public access and use of coastal resources. Therefore, the proposed Project would be consistent with Coastal Act Section 30220.</p>
<p>Section 30221: Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.</p>	<p>Consistent. See response to Coastal Act Section 30220. The Belmont Pool facilities would provide long-term recreational uses for persons within the City and the region. As demand for Olympic-standard aquatic facilities in the City remains high, conversion of the proposed Project site to other uses is not under consideration or very likely and the continuation of a pool facility ensures the continuation of recreational uses on oceanfront lands. The proposed Project would, therefore, be consistent with Coastal Act Section 30221, by protecting such recreational facilities for the long term.</p>
<p>Section 30231: The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of wastewater discharges and entrainment, controlling</p>	<p>Consistent. The pool complex has and would continue to remain open to the public; classes and other programs would continue to serve various populations including children, youth, and seniors. Harbor and coastal waters will be protected through implementation of the water quality management program, including implementation of BMPs both during construction and operation. BMPs as outlined in Section 4.8, Hydrology and Water Quality, of this Draft EIR, are designed to ensure that water quality is not adversely impacted and that biological productivity of coastal waters is</p>

Table 4.9.A: Consistency with California Coastal Act Policies

California Coastal Act Policies	Discussion/Analysis of the Proposed Project
<p>runoff, preventing depletion of groundwater supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.</p>	<p>maintained. During construction, BMPs would prevent soil and sediment, construction debris, and chemicals from entering surface water flows. During operation, BMPs would keep pesticides and trash from surface water flows.</p> <p>Although groundwater dewatering would be required during construction, groundwater dewatering activities would be temporary, and the volume of groundwater removed would not be substantial. During operation, the impervious surface area would decrease by 0.5 ac, which would increase infiltration. As a result, the proposed Project would not interfere with groundwater recharge such that there would be a net depletion in groundwater supplies.</p> <p>Surface water flow would not be substantially altered by the proposed Project since the replacement of the former pool facility would result in a decrease in impervious surface area and stormwater runoff from the site compared to existing conditions. The proposed Project would increase the amount of pervious land cover by 0.5 ac as described in Section 4.8, Hydrology and Water Quality. Therefore, the proposed Project would be consistent with Coastal Act Section 30231 by minimizing adverse effects on coastal waters.</p>
<p>Section 30232: Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.</p>	<p>Consistent. Accidental spillage of hazardous substances during construction is controlled through implementation of appropriate NPDES or other regulatory measures to ensure against any impacts resulting from accidental spills.</p> <p>During operational activities, spillage of solvents and fuels on site can occur as part of typical pool maintenance activities. However, the uses on site are not changing, and the chemicals needed for pool and building maintenance are not changing. Prevention and clean up would comply with all applicable health and safety regulations. In addition, implementation of operational BMPs regarding the transportation and disposal of such wastes would ensure effective containment of accidental spills. Therefore, the proposed Project would be consistent with Coastal Act Section 30232.</p>
<p>Section 30233: The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects.</p>	<p>Consistent. The proposed Project does not include dredging or diking of open coastal waters, wetlands, estuaries, or lakes. Therefore, the proposed Project would be consistent with Coastal Act Section 30233.</p>

Table 4.9.A: Consistency with California Coastal Act Policies

California Coastal Act Policies	Discussion/Analysis of the Proposed Project
<p>Section 30235: Revetments, breakwaters, groins, harbor channels, sea wall, cliff retaining walls, and other construction that alters natural shoreline processes shall be permitted when required to serve coastal dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline and sand supply.</p>	<p>Consistent. The proposed Project does not include any revetments, breakwaters, groins, walls, or other construction that would alter natural shoreline processes. Therefore, the proposed Project would be consistent with Coastal Act Section 30235.</p>
<p>Section 30240: Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas. Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas and shall be compatible with the continuance of those habitat and recreation areas.</p>	<p>Consistent. Consistent with Section 4.3, Biological Resources, there are no environmentally sensitive habitat areas on or adjacent to the Project site. The Project site is currently fully developed with active (pool) and passive (park) recreation uses. There are no native landscaping, waters, or wetland habitat present on or adjacent to the Project site. Therefore, the proposed Project would be consistent with Coastal Act Section 30240.</p>
<p>Section 30244: Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.</p>	<p>Consistent. No archaeological resources as identified on the California State Historic Resources Inventory would be impacted by Project implementation and the proposed Project site is not considered to be sensitive for archeological resources. Furthermore, there are no known paleontological resources on the Project site. However, as discussed further in Section 4.4, Cultural and Paleontological Resources, of this Draft EIR, the proposed Project would have a less than significant impact on paleontological resources with the implementation of mitigation requiring paleontological monitoring for any excavation occurring in depths equal to or greater than 23 ft. Therefore, the proposed Project would be consistent with Coastal Act Section 30244.</p>
<p>Section 30251: The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coast areas, to minimize the alteration of natural landforms, to be visually compatible with the character of surrounding areas and where feasible to restore and enhance visual quality in visually degraded areas. New</p>	<p>Consistent. As discussed in Section 4.1, Aesthetics, of this EIR, the proposed Project improvements ensure protection of on-site and off-site public views along the ocean and coastal area. The proposed facilities have been designed to modernize the previous Belmont Pool facilities while continuing to promote visits to both the coastal beach and the public pool facility, as both are resources of public importance. The proposed facilities have been designed to reflect the character of the coast. The main pool structure is characterized by a translucent cover for the indoor, competition pool that would maximize views of the ocean and coastal area. The structure will be an elliptical-</p>

Table 4.9.A: Consistency with California Coastal Act Policies

California Coastal Act Policies	Discussion/Analysis of the Proposed Project
<p>development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.</p>	<p>shaped dome similar to a drop of water. The glass curtain wall surrounding the outdoor pool would serve to partially maintain views of areas surrounding the Project site and would allow for increased light intrusion. Views of the ocean would be improved as compared to the previous pool facilities because the new pool has been designed to be narrower and would slope in height (refer to Figure 4.1.4, Pre- and Post-Project Building Orientation). While the maximum height for the proposed Project is 11 ft higher than the previous Belmont Pool building, the sloping shape of the proposed Project would reduce the bulk and massing of the new facility in comparison to the former facility which was characterized by a consistent roof line that maintained the maximum height throughout the entire length of the building. Further, the proposed Project would enhance the visual quality of the Project site by constructing a new building and introduce an enhanced architecture with upgraded landscaping. No existing landforms would be altered by Project implementation. Preservation of the scenic coastal character is consistent with the objectives of the California Coastline Preservation and Recreation Plan. Therefore, the proposed Project would be consistent with Coastal Act Section 30251.</p>
<p>Section 30253: New development shall: (1) minimize risks to life and property in areas of high geologic, flood, and fire hazard; (2) assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area, or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs; (3) be consistent with requirements imposed by an air pollution control district or the State Air Resources Control Board as to each particular development; (4) minimize energy consumption and vehicle miles traveled; and (5) where appropriate, protect special communities and neighborhoods which, because of their unique characteristics, are popular visitor destination points for recreational users.</p>	<p>Consistent. The proposed Project would replace a former structure that was deemed seismically unsafe. The proposed Project would also provide for implementation of proposed improvements in a manner that would minimize risks to life and property through the implementation of site-specific recommendations and specifications prepared by professional engineers and others. A geotechnical evaluation was prepared for the proposed Project, which, together with compliance with the seismic requirements of the UBC and the recommended engineering design measures, would ensure stability, structural integrity, and protection of the site and surrounding area. Additional detail regarding geologic hazards is provided in Section 4.5, Geology and Soils, of this Draft EIR. A Phase I Hazardous Materials Assessment (Phase I HMA) was also prepared for the proposed Project, with potential hazards and hazardous material impacts at the Project site and in the surrounding area that may result from implementation of the proposed Project. Compliance with the mitigation measures outlined in Section 4.7 of this Draft EIR would reduce any potential hazards as a result of hazardous material release or fires.</p> <p>The proposed Project would incorporate a number of energy-efficient measures, including variable frequency drive pool pumps, day lighting, and LED pool lighting. In addition, the proposed Project would be built to meet the Leadership in Energy and</p>

Table 4.9.A: Consistency with California Coastal Act Policies

California Coastal Act Policies	Discussion/Analysis of the Proposed Project
	<p>Environmental Design (LEED) Gold certification standards.</p> <p>As discussed in Section 4.1, Aesthetics, the proposed Project would retain existing coastal access, and enhance the former recreational uses of the Project site, thereby enhancing visitor-serving recreation opportunities.</p> <p>The proposed Project would be implemented as consistent with federal, State, and local rules and regulations addressing public health and safety, including requirements from the SCAQMD. The proposed Project would revitalize an existing popular destination point for local recreational users and provide an updated facility for regional swim competitions. Based on the above reasons, the proposed Project would be consistent with Coastal Act Section 30253.</p>
<p>Section 30255: Coastal-dependent developments shall have priority over other developments on or near the shoreline. Except as provided elsewhere in this division, coastal dependent developments shall not be sited in a wetland. When appropriate, coastal related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support.</p>	<p>Consistent. The proposed Project enhances a previous recreational- and visitor-serving use on the coast. The proposed Project is not sited on a wetland, and no coastal-dependent developments would be impacted by the proposed Project. Therefore, the proposed Project would be consistent with Coastal Act Section 30255.</p>

- ac = acre(s)
- ADA = Americans with Disabilities Act (of 1990)
- BMPs = best management practices
- City = City of Long Beach
- Coastal Act = California Coastal Act
- EIR = Environmental Impact Report
- ft = foot/feet
- LED = light-emitting diode
- NPDES = National Pollutant Discharge Elimination System
- SCAQMD = South Coast Air Quality Management District
- UBC = Uniform Building Code

- City of Long Beach Zoning Code, Title 21
- City of Long Beach Parks, Recreation, and Marine Strategic Plan
- Southern California Association of Governments (SCAG) Regional Comprehensive Plan (RCP) and Regional Transportation Plan (RTP)
- **Proposed Projects (Cumulative Analysis)**
 - Pending Development Applications

The consistency analysis presented in this section was prepared in compliance with *State CEQA Guidelines* Section 15125(d). The purpose of the required analysis is to identify potential inconsistencies between the proposed Project and applicable general plans and regional plans. Neither CEQA nor the *State CEQA Guidelines* set forth standards for determining when a project is inconsistent with an applicable plan, and the final determination that a project is consistent or inconsistent with an applicable plan should be made by the lead agency when it acts on a project. Using the methodology described below, the analysis in this Draft EIR presents the findings of policy review and is intended to provide a guide to the decision-makers for policy interpretation.

A project's inconsistency with a policy is only considered significant if such inconsistency would cause significant physical environmental impacts (per *State CEQA Guidelines* Section 15382). This Draft EIR section determines whether any project inconsistencies with public land use policies and documents would be significant and whether mitigation is feasible. Under this approach, a policy conflict is not in and of itself considered to be a significant environmental impact. An inconsistency between a proposed project and an applicable plan is a legal determination that may or may not indicate the likelihood of environmental impact. In some cases, an inconsistency may be evidence that an underlying physical impact is significant and adverse. For example, if the proposed project affected agricultural land, one standard for determining whether the impacts were significant would be to determine whether the project violated a plan or policy protecting agricultural land. The environmental impact, however, would be the physical conversion of agricultural land to nonagricultural uses. Conversely, plan consistency may indicate that a potential environmental impact is less than significant.¹

4.9.2 Existing Environmental Setting

The approximately 5.61 acres (ac) Project site is located in Belmont Shore in the southeastern portion of the City. The Project site is bounded by the Pacific Ocean to the south; the City's Beach Maintenance Yard, a large parking lot that provides parking for visitors to the beach, the former Belmont Pool, beach volleyball, Rosie's Dog Beach, and a boat launch to the southeast; East Olympic Plaza to the north; and the Belmont Veterans Memorial Pier parking lot to the northwest (see Figure 3.1). An existing passive park is located north of the former pool building and south of Olympic Plaza.² The Project site is accessible from Ocean Boulevard.

¹ The methodology presented in this section is based on the methodology recommended in Kostka and Zischke's *Practice Under the California Environmental Quality Act*. Continuing Education of the Bar: Oakland, California, 2013.

² This passive park was part of the 1968 Belmont Pool project and does not have a separate name.

The former pool complex located on the Project site consisted of an enclosed swimming pool, two outdoor pools (swimming and wading), a passive park on the north side of the pool building, locker rooms at the east end of the structure, and an existing restaurant at the west end of the structure. The former pool building had 45,595 square feet (sf) of space and was approximately 60 feet (ft) in height. The three pools provided a total of 18,410 sf of water surface area. Due to its proximity to the Pacific Ocean, the former buildings on the Project site featured glass panel walls and sliding doors which could be opened to convert the indoor pool area to an open-air facility, if desired (see Figure 3.2). The former indoor pool was closed to the public on January 13, 2013, as a result of substandard seismic and structural conditions, and was demolished in February 2015 because of an imminent threat to public safety. The demolition of the structure was conducted under a separate emergency permit; therefore, this EIR does not include analysis of the demolition of the Belmont Pool structure.

As illustrated by Figure 3.3, General Plan Land Use Designations (refer to Chapter 3.0, Project Description), the area south of the Project site is designated as open space/park uses, with residential land use designations for areas west, north, and east of the Project site. Consistent with these General Plan land use designations, existing land uses surrounding the Project site include beach uses and the Pacific Ocean south of the Project site and residential uses west, north, and east of the Project site. Specifically, land uses around the Project site include the Belmont Shore neighborhood to the northeast, the Belmont Veterans Memorial Pier, Belmont Beach, and parking to the northwest, and the Pacific Ocean, beaches, and parking lots to the west and east. In addition, several businesses are located along the northern side of East Olympic Plaza, including Belmont Shores Children's Center, a vacant commercial building, the former Yankee Doodles restaurant, a dog wash, and Chuck's Coffee Shop.

4.9.3 Regulatory Setting

Federal Policies and Regulations. There are no federal land use policies or regulations that are applicable to the Project site with respect to land use regulation.

State Regulations.

California Coastal Act/Local Coastal Program/Coastal Development Permit. The Coastal Act was created to: (1) protect, maintain, and, where feasible, enhance and restore the overall quality of the Coastal Zone environment and its natural and man-made resources; (2) ensure orderly, balanced utilization and conservation of Coastal Zone resources that take into account social and economic needs; (3) maximize public access to and along the coast and public recreational opportunities in the Coastal Zone consistent with sound resource conservation principles and constitutionally protected rights of private property owners; (4) ensure priority for coastal-dependent development over other development on the coast; and (5) encourage State and local cooperation in preparing procedures to implement coordinated planning and development for mutually beneficial uses in the Coastal Zone. The Coastal Act requires all cities located within the Coastal Zone to adopt a Local Coastal Program (LCP). The LCP is used by cities to regulate local land uses and development in a manner that is consistent with the goals of the Coastal Act. Specifically, LCPs identify the location, type, densities, and other land use policies for future development within the Coastal Zone of a jurisdiction.

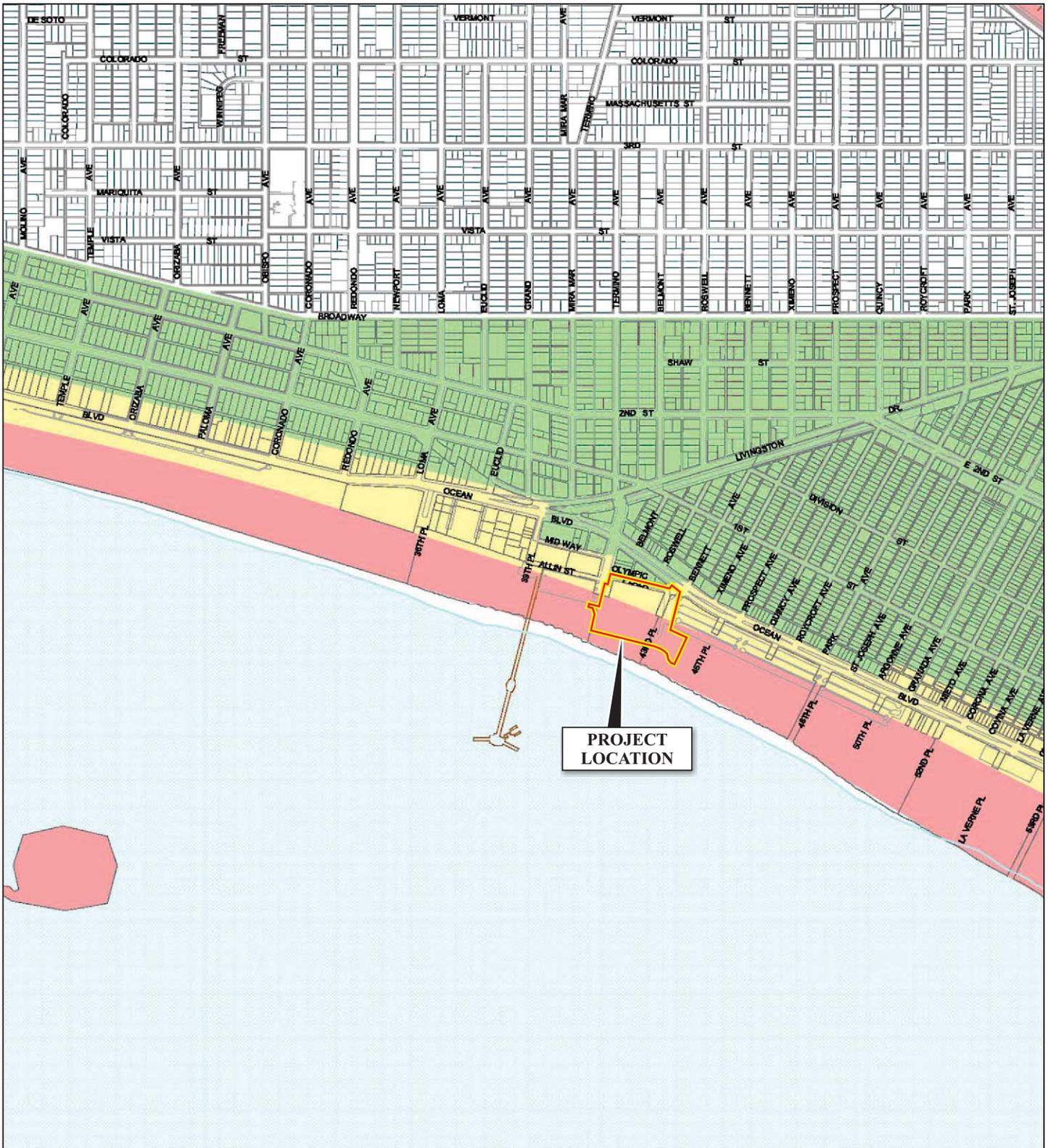
The Project site is located entirely within the Coastal Zone (refer to Figure 4.9.1, Coastal Zone) and is under the land use planning and regulatory jurisdiction of both the City and the California Coastal Commission (Coastal Commission). An LCP that governed land uses within the City was adopted by the City Council on February 12, 1980, and certified by the Coastal Commission on July 22, 1980. After the Coastal Commission has certified an LCP, the primary responsibility for issuing Coastal Development Permits (CDPs) is transferred from the Coastal Commission to the local government for all nonshore/nonwater projects in the Coastal Zone. However, the Coastal Commission retains permanent coastal permit authority over development proposed on tidelands, submerged lands, and public trust lands. Projects proposed within the Coastal Zone are required to obtain a CDP prior to commencement. A portion of the site is within the City's jurisdiction to issue a CDP, while the tidelands and shoreline areas of the site are under the CDP jurisdiction of the Coastal Commission.

Local and Regional Policies and Regulations. The Project site is covered by several planning documents and programs that have varying degrees of regulation over use of the site. The adopted planning documents regulating land use within and around the Project site are the City of Long Beach General Plan, the City of Long Beach Zoning Code, and the City of Long Beach Parks, Recreation, and Marine Strategic Plan.

In addition, the Southern California Association of Governments (SCAG) has adopted the RCP, the RTP, and the Compass Blueprint, which serve as regional planning policy documents applicable to the proposed Project.

Southern California Association of Governments Regional Comprehensive Plan. Regional planning is conducted for a six-county metropolitan region comprising the Counties of Orange, Los Angeles, Ventura, Riverside, San Bernardino, and Imperial. SCAG is the federally recognized Metropolitan Planning Organization (MPO) for these six counties. Long Beach is part of the Gateway Cities subregion within the SCAG region. The Gateway Cities subregion is governed by the Gateway Cities Council of Governments (Gateway COG). The SCAG's RCP is a regional policy document that responds to Southern California's housing, traffic, water, air quality, and other regional challenges. The plan is a collaborative effort to address the region's challenges and set a path forward. The RCP ties together SCAG's role in transportation, land use, and air quality planning and further promotes environmental policies. Second, it recommends key roles and responsibilities for the public and private sectors and requests that reasonable policies be implemented.

The RCP's objective is to balance resource conservation, economic vitality, and quality of life. The plan lays out a long-term planning framework that responds to growth and infrastructure challenges in a comprehensive way. Local governments are asked to consider the plan's recommendations in General Plan updates, municipal code amendments, design guidelines, incentive programs, and other actions.



LSA



LEGEND

- City Permit Jurisdiction
- Appealable Area
- State Permit Jurisdiction

FIGURE 4.9.1

Belmont Pool Revitalization Project
Coastal Zone

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City of Long Beach General Plan. The General Plan for the City of Long Beach presents a vision for the City's future and a strategy to make that vision a reality. The Long Beach General Plan is a document adopted by the City Council that serves the following purposes:

- Provides a vision and framework for the City's long-range physical and economic development and resource conservation that reflects the aspirations of the community
- Provides strategies and specific implementing actions that will allow this vision to be accomplished
- Establishes a basis for judging whether specific development proposals and public projects are in harmony with Plan policies and standards
- Allows City departments, other public agencies, and private developers to design projects that will enhance the character of the community, preserve and enhance critical environmental and historical resources, and minimize hazards
- Provides the basis for establishing and setting priorities for detailed plans and implementing programs such as the Zoning Code, Capital Improvement Plans, facilities plans, and specific plans

The City's General Plan consists of a series of State-mandated and optional elements to direct the City's physical, social, and economic growth. The Long Beach General Plan is organized into 11 elements: Land Use, Transportation, Housing, Conservation, Noise, Open Space and Recreation, Public Safety, Scenic Routes, Seismic Safety, Historic Preservation, and Air Quality. The City has also adopted an LCP as part of its General Plan. Each of the 11 General Plan Elements are briefly described below.

Land Use Element. The Land Use Element of the City's General Plan was adopted in 1989 and revised most recently in 1997. The Land Use Element presents goals and policies pertaining to how existing development is going to be maintained and enhanced and how new development will occur. As the City is almost fully developed, the Land Use Element focuses on how population and employment growth can be strategically inserted to preserve the City's distinguishing and valued qualities. However, there are limited areas of the City that are not achieving their full potential, and the element establishes strategies for their enhancement and revitalization. Land Use Element goals and policies directly affect the establishment and maintenance of the neighborhoods, districts, corridors, and open spaces that distinguish and contribute to the City's livability, vitality, and image. A key ingredient to successful implementation of this vision is the management of land uses and the appropriate mix of land uses. To this end, a Land Use Map was adopted and included in the Land Use Element to guide future development decisions.

The northern portion of the Project site is designated as Mixed-Use Land Use District (LUD) No. 7. Mixed-Use LUD No. 7 is intended to provide employment centers (including retail, office, and medical facilities), high-density residential, visitor-serving facilities, personal and professional services, and recreational facilities at large, vital activity centers in the City. The southern portion of the Project site is located within LUD No. 11, Open Space and Parks,

which is intended to preserve open space areas and provide additional recreational opportunities for residents of and visitors to the City.

It should be noted that the City is currently in the process of updating its General Plan Land Use Element. Under the new Land Use Element, the proposed project would be in an area designated as the “Waterfront PlaceType.” This PlaceType would allow for the redevelopment of the Belmont Pier and Pool Complex along with other water-dependent ancillary uses.

Mobility Element. The Mobility Element, which was adopted in 2013, addresses the movement of people and goods via automobiles, transit, bicycles, and other modes. It addresses key issues such as trip reduction; parking, bicycle, and pedestrian access; traffic flow; transportation improvements and funding; and traffic safety.

The Project site is located south of Ocean Boulevard, southeast of Livingston Drive, and north of the Pacific Ocean. Ocean Boulevard is designated as a Congestion “Hot Spot” in the City’s Mobility Element.

2013–2021 Housing Element. The City’s 2013–2021 Housing Element (Housing Element) was adopted for the current planning cycle in January 2014 and was certified by the California Department of Housing and Community Development in April 2014. The City’s Housing Element reflects the State’s housing unit construction goals as allocated by SCAG in the Regional Housing Needs Assessment for the years between 2014 and 2021. The Housing Element analyzes current housing needs, estimates future housing needs, considers potential sites for additional housing, and establishes goals, policies, and programs in response to both current and future housing needs.

There are no residential units on the Project site, and no residential units are proposed as part of the Project.

Conservation Element. The Conservation Element was adopted in 1973. The primary objective of the Conservation Element is to provide direction regarding the conservation, development, and utilization of natural resources. It identifies the City’s natural resources and provides goals and policies for their preservation, development, and wise use. This element addresses harbors, water supply (as a resource) and water quality (including river, bay, and ocean water quality, and potable drinking water), terrestrial and marine biological resources, mineral resources, visual resources, soils and beaches, and open space. Goals and policies from the Conservation Element are addressed throughout this Draft EIR.

Noise Element. The Noise Element, which was adopted in 1975, identifies noise-sensitive land uses and noise sources, and defines areas of noise impacts. Goals and policies within the Noise Element provide a framework to ensure that City residents will be protected from excessive noise intrusion.

The primary existing noise sources in the vicinity of the Project site are transportation uses, primarily traffic on Ocean Boulevard.

Although the typical outdoor pool operations would not include substantial noise generation, the proposed Project would generate noise from limited special events occurring at the outdoor pool, from sources which include, but are not limited to, spectators, whistles from officiating water polo games, starting horns, and the use of a public address system. Noise levels generated from the indoor pool from sources including spectators and the public address sound system would be contained within the building.

Open Space and Recreation Element. The Open Space and Recreation Element, which was adopted in 2002, addresses the provision of parklands and recreation programs for the City's residents. Specific recreational issues and policies contained in the Open Space and Recreation Element include parks and recreation facilities, recreation programs, shared facilities, coastal recreation and support facilities, marine recreation, and public access.

As previously stated, the Project site was previously developed with recreational uses, including the Belmont Pool buildings and a passive park north of the pool buildings.

Seismic Safety Element. The Seismic Safety Element, which was adopted in 1988, provides goals and policies to reduce the potential risk of death, injuries, property damage, and economic and social dislocation resulting from seismic hazards.

According to geotechnical reports prepared for the proposed Project (Appendix E), the Project site is not located within an Alquist-Priolo Special Study Zone (geological hazard), and no known faults traverse the Project site. However, the Project site is located within seismically active Southern California. The closest mapped active fault to the Project site is the Newport-Inglewood Fault, which is approximately 1.5 miles from the Project site. Refer to Section 4.5, Geology and Soils, of this Draft EIR for further discussion related to potential impacts related to seismic hazards.

Public Safety Element. The Public Safety Element, which was adopted in 1975, provides goals and policies to reduce the potential risk of death, injuries, property damage, and economic and social dislocation resulting from natural and human-induced hazards. The Public Safety Element specifically addresses urban fire hazards, coastal hazards, geologic hazards, crime prevention, utility-related hazards, hazardous materials, flood hazards, and disaster planning.

According to the geotechnical reports prepared for the proposed Project, the Project site is located in a liquefaction hazards zone, and mitigation is provided in Section 4.5, Geology and Soils, to address this potential hazard. Because the proposed Project would not include housing or other habitable structures, it was determined that the proposed Project would not result in significant impacts related to the placement of housing within a flood zone. Refer to

Section 4.5, Geology and Soils, and Section 4.7, Hazards and Hazardous Materials, for additional discussion of potential hazards associated with Project implementation.

Scenic Routes Element. The Scenic Routes Element, which was adopted in 1975, addresses selective and protective criteria and standards for the designation of scenic corridors within the City. The Scenic Routes Element also contains specific urban design criteria and standards that support the regulation of structures, signage, utility lines, landscaping, view corridors, street furniture, and other visual elements within scenic corridors.

As previously stated, visitors to the Project site enjoy views of the Pacific Ocean. The following are City-designated Local Scenic Routes near the Project site as established by the General Plan Scenic Routes Element: (1) Ocean Boulevard between the Los Angeles River and Livingston Drive (borders the northern portion of the Project site); (2) Livingston Drive between Ocean Boulevard and 2nd Street (approximately 650 ft northeast and north of the Project site); and (3) 2nd Street between Livingston Drive and Pacific Coast Highway (approximately 0.40 mile north of the Project site).

Historic Preservation Element. The Historic Preservation Element, which was adopted in 2010, addresses the protection and sustainability of the City's historic resources. Goals and policies presented within the Historic Preservation Element are intended to recognize, maintain, and protect the community's unique historical, cultural, and archeological sites and structures.

As described further in Section 4.4, Cultural and Paleontological Resources, of this Draft EIR, there are no known prehistoric archaeological sites within the Project site nor did the former Belmont Pool facilities meet either the California Register of Historical Resources or the City's Historic Landmark criteria. Therefore, these facilities are not considered historical resources pursuant to CEQA.

Air Quality Element. The Air Quality Element, which was adopted in 1996, bridges the Land Use and Transportation Elements of the City's General Plan to better recognize the relationship between land use patterns, transportation planning, and air quality, and identifies a broad range of actions that could contribute to cleaner air in the City and surrounding region. The Air Quality Element identifies a series of policies, programs, and strategies that encourage fewer vehicle trips, increased opportunities for alternative transportation modes and fuels, and land use patterns that can be efficiently served by a diversified transportation system.

City of Long Beach Zoning Code. Zoning is the division of a City into districts and the application of development regulations specific to each district. The City of Long Beach Zoning Code, Title 21 of the Municipal Code, includes regulations concerning where and under what conditions a business may operate in the City. It also establishes zone-specific height limits, setback requirements, parking ratios, and other development standards.

It is the intent of the City to have consistency between the General Plan Land Use Element and the Zoning Ordinance in order to ensure that long-term goals and objectives are implemented through land use regulations and other tools. The zoning ordinance and zoning designations of the land are primary tools implementing the City's General Plan. Planned development districts in the City were established to allow flexible development plans to be prepared for areas of the City that may benefit from the formal recognition of unique or special land uses and the definition of special design policies and standards not otherwise possible under conventional zoning district regulations.

Figure 3.4, Zoning Designations in the Project Vicinity (refer to Chapter 3.0, Project Description) illustrates the existing zoning designations for the Project site and surrounding areas. The Project site is zoned Park (P) and Belmont Pier Planned Development District (PD-2). The intent of the park district is to preserve publically owned natural and open space areas for active and passive public use. The intent of the PD-2 designation is to provide a set of land use regulations specific to the Belmont Pool and Pier, due to its unique land use. As established by the City's Zoning Code, the maximum allowable height of building structures within the Park zoning district is 30 ft. Therefore, the proposed Project requires a variance to allow for the proposed 71 ft high Belmont Pool structure. However, it should be noted that the former Belmont Pool facilities also exceeded the Zoning Code requirement with a maximum height of 60 ft. Additionally, because the proposed Project would be a domed structure, the maximum height would only be reached at one point, and several portions of the structure would be lower in height than the former Belmont Pool facility.

Although the City Zoning Code establishes parking requirements for development projects in the City, there are no specific parking requirements for facilities included as part of the Project.

The proposed Project requires site plan review and approval as part of overall project approvals. The site plan review process helps guide the design of new projects to ensure compatibility between new development and existing neighborhoods in terms of scale, style, and construction materials. The Planning Commission has site plan review approval authority over the Project and may impose reasonable Conditions of Approval including, but not limited to, requirements for revised site layout, changes in building materials, colors, textures, additional screening and/or landscaping, and street improvements or other dedications.

For some uses, a Conditional Use Permit (CUP) is required to operate in a specific zone allowing an applicant to engage in specified activities or conduct a business under special conditions designed to protect the neighborhood and the community. Each CUP application is individually reviewed to determine whether the proposed use can operate at a given location without harming its neighbors or the surrounding community. The proposed café use is located in the portion of the site zoned Park (P). A CUP is required for any restaurant uses (with or without the sale of alcoholic beverages) in the Park zoning district. Therefore, the independent tenant for the café would be required to obtain a CUP at the time of occupancy.

City of Long Beach Parks, Recreation, and Marine Strategic Plan. The City Department of Parks, Recreation, and Marine developed a departmental Strategic Plan in April 2003. The

departmental Strategic Plan assessed recreation needs and objectives citywide. The following strategies established in this plan are applicable to the proposed Project:

- **Strategy 2.1:** Focus on improving the level of safety within City parks and recreational facilities.
- **Strategy 2.2:** Focus on improving the condition of Department parks and recreational facilities.
- **Strategy 3.1:** Establish lifetime use opportunities. Recreation programs and facilities will be designed to develop and serve a lifetime user through active, passive, and educational experiences.

4.9.4 Impact Significance Criteria

The thresholds for land use impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines*. The proposed Project may be deemed to have a significant impact with respect to land use if it would:

Threshold 4.9.1: Physically divide an established community;

Threshold 4.9.2: Conflict with any applicable Land Use Plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, Specific Plan, LCP, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or

Threshold 4.9.3: Conflict with any applicable Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP).

The Initial Study, included as Appendix A, substantiates that because the existing Project site was previously developed with the former Belmont Pool complex and is surrounded by existing development, and because the proposed Project would redevelop the Project site with new and expanded Belmont Pool facilities, the proposed Project would not result in any impacts related to the division of an established community (Threshold 4.9.1). The IS/NOP also found that the Project site and its surrounding area are not subject to any Habitat Conservation Plan (HCP) or Natural Communities Conservation Plan (NCCP). Therefore, the proposed Project would not conflict with an HCP or NCCP relating to the protection of biological resources (Threshold 4.9.3). Therefore, these thresholds will not be addressed in the following analysis.

In addition, unlike other impacts evaluated in this Draft EIR, land use conflicts and inconsistencies with land use plans, policies, and regulations are inherently a permanent feature of project operations. Therefore, a discussion of the potential for the proposed Project to result in land use impacts during its construction is not applicable.

CEQA Baseline. At the time the NOP was published (April 2014), the Project site contained both the Belmont Pool facilities and the outdoor temporary pool (opened in December 2013 to provide swimming facilities while the permanent facility was under construction). Although the site contained the former Belmont Pool building at the time of the NOP, the facility was subsequently demolished in

February 2015 to alleviate an imminent public safety threat due to the seismically unsafe condition of the building.

The inclusion of the former building in the assessment of land use and planning impacts is appropriate because the site has been dedicated as the Belmont Pool Plaza since 1962 when the use of Tidelands funds for the construction of the “Belmont Plaza Beach Center” (now Belmont Plaza) project was approved by the voters in February 1962 after the Long Beach City Council voted to place the item in the municipal election. Furthermore, the former pool was in use for approximately 45 years and has long been included in applicable land use and planning documents regulating the site. Substantial evidence supports the determination that a baseline condition with the former building is appropriate based on recent historic use and the long-term designation of the site for aquatic recreational purposes.

4.9.5 Project Impacts

Threshold 4.9.2: **Would the project conflict with any applicable Land Use Plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, Specific Plan, LCP, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?**

Less than Significant Impact. The Project site is under the land use planning and regulatory jurisdiction of the City and the Coastal Commission. The existing Project site is owned and operated by the City, which has the primary authority for development, maintenance, and operation of uses within the pool complex. The City’s Department of Parks, Recreation, and Marine is responsible for the daily operations within the complex. The proposed replacement of the pool facilities is intended to enhance the public’s access and recreational opportunities and is a continuation of existing/previous land uses, consistent with existing land use plans, policies, and regulations. The proposed Project’s consistency with applicable City and Coastal Commission land use plans and policies is discussed in more detail below.

California Coastal Commission/California Coastal Act/Local Coastal Program. The Coastal Act requires all cities located within the Coastal Zone to adopt an LCP. The LCP is used by cities to regulate local land uses and development in a manner that is consistent with the goals of the Coastal Act. The City has an LCP that was certified by the Coastal Commission in 1980 and that governs permitted uses, activities, and development in the Coastal Zone within the City. The proposed Project is consistent with the policies and guidelines contained in the LCP, which states, “Belmont Plaza Pool is a facility which was designed and is utilized for Olympic-class swimming and diving events. It is, therefore, unusually important in the training of U.S. athletes for international events.”

The City-certified LCP includes the Project site and surrounding area, and the City retains jurisdiction over the approval of a CDP for a portion of the site. However, because the Project site includes areas within the tidelands and submerged lands, the Coastal Commission retains jurisdiction over the approval of a CDP for those parts of the project site. The appropriate standard for review is the proposed Project’s consistency with the LCP and the Coastal Act.

The Coastal Act identifies Coastal Resources Planning and Management Policies (Chapter 3, Section 30200 et seq.) that address the following issue areas:

- Public Access
- Recreation
- Marine Environment
- Land Resources
- Development
- Industrial Development

Table 4.9.A outlines the applicable Coastal Act policies and discusses the proposed Project's consistency with each applicable policy. Several policies are not included in Table 4.9.A because they address issues that are not applicable to the proposed Project. Policies not included in the discussion include the following: access and development policies for new development projects; development of marine, private, upland, and agricultural lands; construction altering the natural shoreline; water supply and flood control projects; and policies related to industrial developments.

As indicated above, the policies within Chapter 3 of the Coastal Act are intended to provide protection for suitable oceanfront lands to be used for water-oriented and recreational purposes. The proposed Project is consistent with the intent of these policies. The proposed Project consists of replacement of and improvements to the existing water-oriented, recreational- and visitor-serving facilities. In addition, the proposed Project would further increase public recreational opportunities by providing a modern upgraded facility that is Americans with Disabilities Act (ADA)-compliant and is consistent with the current needs of the aquatics community. As indicated in Table 4.9.A, the proposed Project is consistent with applicable Coastal Act policies, and impacts are, therefore, considered less than significant. No mitigation is required.

SCAG's Regional Policies. As detailed previously, SCAG's Regional Policy documents respond to Southern California's housing, traffic, water, air quality, and other regional challenges. The RCP's objective is to balance resource conservation, economic vitality, and quality of life. The RTP is a Regional Policy document that responds to Southern California's regional traffic challenges. In addition, the SCAG Compass Growth Vision provides policies to direct growth related to mobility, livability, prosperity, and sustainability.

The SCAG RCP includes a package of policies related to growth and development that seeks to coordinate infrastructure with projected population and housing growth. In general, SCAG policies encourage job and housing opportunities to be balanced at the county or subregional level (Regional Statistical Area). SCAG policies also encourage job growth to be concentrated near transit services, transit nodes, existing freeways, high-occupancy vehicle lanes, and toll roads.

SCAG maintains an Intergovernmental Review Criteria List to assist agencies in determining whether a project is considered regionally significant. The Intergovernmental Review Criteria

List includes the following criteria for determination of regionally significant projects: transportation projects (including the expansion of freeways, State highways, principal arterials, or routes that provide primary access to major activity centers), public service or utility projects (e.g., electrical sewage or water treatment facilities or flood control projects), and air quality regulatory plan projects. Based on the criteria contained in the *State CEQA Guidelines* and SCAG's Intergovernmental Review Criteria List described above, the proposed Project is not a project of regional significance. Therefore, the proposed Project would not result in impacts related to regional planning issues, and no mitigation is required.

As stated previously, the RCP aims to reduce emissions and increase mobility through strategic land use changes. However, because the proposed Project is a replacement/expansion of previous recreational facilities and would not alter the previous land uses on the Project site, these RCP strategies are not applicable to the proposed Project. No mitigation is required.

General Plan Land Use Element. The City's General Plan land use designations for the Project site are LUD No. 7, Mixed-Use, and LUD No. 11, Open Space and Parks. The northern portion of the Project site is designated as No. 7 Mixed-Use (see Figure 3.3). Mixed-use accommodates a wide range of uses and is intended to provide for use in large activity centers of the City.

According to the City's General Plan, LUD No. 7 is intended for large, vital activity centers. Combinations of land uses intended in LUD No. 7 include employment centers; visitor-serving uses, high-density residential, personal or professional services, and recreation uses. Permitted uses within LUD No. 11 include employment centers (e.g., retail, offices, and medical facilities), high-density residential uses, visitor-serving facilities, personal and professional services, and recreational uses. LUD No. 11 is intended to provide for "preserving natural habitat areas and promoting the mental and physical health of the community through recreational, cultural, and relaxation pursuits. Parks are characterized by open spaces devoted to leisure activities including the enjoyment of nature, wildlife, cultural heritage, sports, and similar activities." Consistent with the intent of LUD No. 7, the proposed Project includes the replacement and construction of the new Belmont Pool complex, which is a visitor-serving recreational use. The proposed Project also includes an open space/park area (a park use), a café (a retail use) and gathering area, and public restrooms, consistent with permitted land uses as allowed within LUD No. 7. Therefore, the proposed Project would be consistent with both LUD No. 7 and LUD No. 11.

The City's General Plan Land Use Element also contains goals and policies that are applicable to the proposed Project. These applicable goals and policies from the City's General Plan are listed in Table 4.9.B, along with a consistency analysis of the proposed Project with each relevant goal and policy. The purpose of this discussion is to provide a guide to the decision-makers' policy interpretation and should be considered preliminary; a final determination of consistency with plans and policies would be made by City decision-makers. As identified through this consistency analysis, the proposed Project would be consistent with applicable policies in the City's General Plan.

Replacing and improving the pool facilities and related ancillary uses on the Project site would also be consistent with the existing land uses in the area and would not conflict with the recreational objectives of the existing land use designations. Further, the proposed Project would

improve the character of the recreation areas and would further the objective of supporting recreation uses. The proposed Project would result in a modern aquatics facility that is ADA-compliant, which would increase the overall value of the Project site as a recreational resource consistent with the designations within the General Plan Land Use Element.

As previously stated, the City is currently in the process of updating its General Plan Land Use Element. Under the new Land Use Element, the proposed Project would be in an area designated for waterfront uses, which among other things, would allow for redevelopment of the Belmont Pier and Pool Complex. As such, in the event that the proposed Project is approved after the General Plan is updated, the proposed Project would be consistent with the City's General Plan land use designation for the site. Therefore, implementation of the proposed Project would not result in significant land use compatibility issues with the City's General Plan Land Use Element.

General Plan Open Space and Recreation Element. The City's Open Space and Recreation Element defines the Belmont Pool complex as a special-use park because of the numerous recreational amenities and specialized aquatic uses it has provided. The proposed Project would be consistent with the objectives and policies established in the General Plan Open Space and Recreation Element for the Project area because the proposed Project would enhance recreation opportunities and facilities on the Project site (i.e., replacing the facility to meet current seismic standards, improving the facility to meet Leadership in Energy and Environmental Design (LEED) Gold building standards, and upgrading to a modern aquatics facility that is ADA-compliant, meeting the needs and desires of the competitive and recreational aquatics community). Therefore, the proposed Project would be consistent with, and furthers the intent of, the policies within the Open Space and Recreation Element. Therefore, no adverse impacts to open space and recreation amenities would result, and mitigation would not be required.

Table 4.9.B: General Plan Land Use Policy Consistency Analysis

Policies	Consistency Analysis
<p>Land Use. Recent zoning code amendments to restrict building heights to 24/28 feet and to minimize bulk reflect the residents’ strong desire to maintain Belmont Shore as a low scale, low-density neighborhood with many amenities. Maintaining this profile for this neighborhood is recommended.</p> <p>Also important to this neighborhood and the larger community is the continued vitality of the commercial center along 2nd Street. This bustling retail activity creates a very positive image for Long Beach and should be encouraged and supported. Parking problems are currently being addressed by a joint effort of City staff, the Belmont Shore Parking and Business Improvement Area Advisory Commission, and neighborhood-wide community groups. This effort should continue as long as necessary. Additional region-serving uses should not be permitted. Belmont Shore should remain low density overall. This plan recommends a general retention of densities permitted by the Local Coastal Program. Intensification of the existing business mix without adequate consideration for parking, traffic, and the residential quality of life should not be permitted.</p>	<p>Consistent. The proposed Project would replace the former Belmont Pool and provide the City with a new, modern pool complex. The Project proposes the construction and operation of an approximately 125,500 sf replacement pool complex that includes indoor and outdoor pool components and a café. While the proposed aquatic complex would exceed the height requirements established in the Zoning Code, the former Belmont Pool facility was also in excess of the maximum building height. Additionally, because the proposed Project would be a domed structure, the maximum height would only be reached at one point, and several portions of the structure would be lower in height than the former Belmont Pool facility. However, a height variance would be required for the proposed Project.</p> <p>The recreational uses that would occupy the Project building are anticipated to be community and regional-serving in nature. No changes to the existing parking lots are included in the proposed Project. As a result, event traffic was considered in the traffic analysis for the proposed Project. Any event with more than 450 spectators would be considered a large special event that would require an Event Traffic Management Plan. Mitigation Measure 4.12.1 requires the City to prepare and implement an Event Traffic Management Plan that provides traffic and control measures for special events.</p>
<p>Design Controls/Architectural Compatibility. Respecting the low scale of existing homes and minimizing the bulk of new developments is necessary. Architectural conformance is considered important and respecting existing scales is considered mandatory.</p>	<p>Consistent. Although the proposed Project’s building height would be similar to the former Belmont Pool facility, the proposed Project would require a variance to allow for the proposed 71 ft high Belmont Pool structure. However, it should be noted that the former Belmont Pool facilities also exceeded the Zoning Code requirement with a maximum height of 60 ft. Additionally, because the proposed Project would be a domed structure, the maximum height would only be reached at one point and several portions of the structure would be lower in height than the former Belmont Pool facility.</p> <p>As shown on Figures 3.7a and 3.7b, the proposed Project would feature an elliptical-shaped dome, comprised of a web of structural steel, infilled with ethylene tetrafluoroethylene (ETFE) plastic creating a</p>

Table 4.9.B: General Plan Land Use Policy Consistency Analysis

Policies	Consistency Analysis
	continuous shell over the competition pool. The translucent cover would serve as the main arena and would house the indoor pools and bleachers. The dome shape of the proposed Project would reduce the bulk and massing of the new facility and introduce an enhanced architecture to the Project site.
<p>Neighborhood Services, Facilities, and Amenities. Belmont Shore is well served by various types of educational, commercial/retail, and recreational facilities. Alamitos Bay, the Pacific Ocean, and Marine Stadium provide ample opportunities for water sports. The City-owned green space located along Livingston Drive provides passive recreational uses. Rogers Junior High and Lowell Elementary Schools provide educational opportunities to residents. The commercial center located along 2nd Street is a popular shopping and entertainment strip serving residents and tourists alike.</p>	<p>Consistent. As described above, the proposed Project’s recreational facilities would provide increased visibility to the City’s existing water sports recreational facilities. The improved aquatic facilities would attract both local residents and visitors to the local commercial establishments in the vicinity of the Project site.</p>

City = City of Long Beach
 ft = foot/feet
 sf = square feet

City of Long Beach Zoning Code. The Project site encompasses areas zoned Park and PD-2. Figure 3.4 illustrates the zoning designations for the Project site and surrounding areas. The PD zoning designation was established to allow flexible development plans for areas of the City that represent unique or special land uses, such as the Belmont Pool complex.

The proposed Project would replace a previous use with a similar use. The active recreational uses in the proposed Project are consistent with the existing zoning designations. The proposed Project would improve the character of the recreation areas and would further the objective of supporting coastal recreation uses. Although the existing zoning of the Project site is consistent with the recreational uses on the site and in the surrounding area, as established by the City's Zoning Code, the maximum allowable height of building structures within the Park zoning district is 30 ft. Therefore, the proposed Project would require the approval of a variance to allow for the proposed maximum height of 71 ft. In addition, the proposed Project would provide ADA-compliant facilities, which would increase access to the Project site for recreation. Therefore, following approval of the requested height variance, no impacts related to zoning consistency would occur with implementation of the proposed Project, and no mitigation would be required.

City of Long Beach Parks, Recreation, and Marine Strategic Plan. The City Department of Parks, Recreation, and Marine developed a Strategic Plan in February 2003. The departmental Strategic Plan assessed recreation needs and objectives citywide and identified strategies to provide recreation opportunities and improve water quality and City beach areas. Specific strategies that are applicable to the proposed Project are listed in Subsection 4.9.1, Existing Environmental Setting. The proposed Project would be consistent with and further the intent of these strategies. Specifically, the proposed Project would:

- Improve and modernize the former pool complex condition, infrastructure, and amenities through the replacement of deteriorated facilities with new facilities that accommodate both competitive and recreational swimmers, divers, and other aquatic users. (Strategy 2.2)

Therefore, the proposed Project would not conflict with the City Department of Parks, Recreation, and Marine Strategic Plan, and impacts related to this topic would be less than significant, and no mitigation would be required.

4.9.6 Cumulative Impacts

As defined in Section 15130 of the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of current and probable future projects within the cumulative impact area for land use. Construction of the proposed Project, when considered in conjunction with several other existing and planned developments in proximity to the Project, would contribute to recreational facilities within the City. The cumulative study area for consideration of potential land use impacts includes the City of Long Beach.

It should be noted that the proposed Project site is currently designated as LUD No. 7 and LUD No. 11 by the City's General Plan Land Use Element and General Plan Land Use Map. These land use designations allow for parks and open space and the development of a mix of commercial, recreation,

and retail uses. As such, development of the proposed Project would be consistent with the existing General Plan land use designations. The land use patterns around the Project site have been long-established with recreational, open space, and small areas of retail (food and concession areas) development. The proposed Project involves replacement of a former pool facility and would be compatible with development in the immediate area surrounding the Project site. Therefore, the construction of the new Belmont Pool facilities would not result in a potential inconsistency with the City General Plan or other land planning documents, nor would the proposed Project result in significant land use compatibility issues.

Land use compatibility is a combination of other impacts, including potential aesthetic, air quality, noise, and traffic impacts. Potential cumulative impacts associated with traffic generation and related air quality and noise impacts are addressed in those topical sections of this Draft EIR. None of these related environmental topics were found to have significant cumulative effects. Therefore, implementation of the proposed Project would not result in, or contribute to, a cumulatively significant land use impact, and no mitigation is required.

4.9.7 Level of Significance Prior to Mitigation

The proposed Project would not conflict with applicable planning documents following City-approval of the proposed height variance and CUP for food and beverage sales.

Activities associated with implementation of the proposed Project would not substantially conflict with adjacent land uses. The Project is intended to provide recreational opportunities in an area where adequate supporting uses and public services and facilities exist. Therefore, the proposed Project would not conflict with adjacent land uses, and no mitigation is required.

4.9.8 Mitigation Measures

No mitigation is required.

4.9.9 Level of Significance after Mitigation

All potential Land Use impacts would be less than significant. No mitigation is required.

4.10 NOISE

This section evaluates the potential short-term construction and long-term operational noise impacts of the proposed Belmont Pool Revitalization Project (proposed Project). This analysis is intended to satisfy the City of Long Beach's (City) requirement for a Project noise impact analysis by examining the short-term construction and long-term operational impacts on on-site and off-site land uses involving sensitive receptors and evaluating the effectiveness of proposed mitigation measures. Noise calculation sheets developed during preparation of the following noise analysis are included in Appendix G of this Draft Environmental Impact Report (EIR).

Scoping Process

The City of Long Beach distributed the first Notice of Preparation (NOP) for the Draft EIR from April 18 to May 17, 2013. The City received three comment letters in response to the original NOP. No comment letter associated with noise was received in response to the original NOP circulated for the proposed Project. Due to revisions in the Project Description, the City re-issued the NOP for the Draft EIR between April 9, 2014, and May 8, 2014. The City received five comment letters in response to the re-issued NOP during the public review period. No noise-related issues were raised in those comment letters.

4.10.1 Methodology

The evaluation of noise impacts associated with the proposed Project includes the following:

- Determination of the short-term construction noise impacts on on-site and off-site noise-sensitive uses with industry-recognized noise emission levels for construction equipment;
- Determination of the long-term operational noise impacts, including vehicular traffic and aircraft activities, on on-site and off-site noise-sensitive uses; and
- Determination of the required mitigation measures to reduce short-term and long-term noise impacts from all sources.

Fundamentals of Noise.

Noise Definition. Noise impacts can be described in three categories. The first category includes audible impacts, which refer to increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3 decibels (dB) or greater, because this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level between 1 and 3 dB. This range of noise levels has been found to be noticeable only in carefully controlled laboratory environments. The last category includes changes in noise levels of less than 1 dB, which are inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered potentially significant and adverse.

Characteristics of Sound. Sound is increasing in the environment and can affect quality of life. Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep. To the human ear, sound has two specific characteristics: pitch and loudness. Pitch is generally an annoyance, while loudness can affect the ability to hear. Pitch is the number of complete vibrations (or cycles per second) of a wave, resulting in the tone's range from high to low. Loudness is the strength of a sound and describes a noisy or quiet environment; it is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves, combined with the reception characteristics of the human ear. Sound intensity refers to how hard the sound wave strikes an object, which in turn produces the sound's effect. This characteristic of sound can be precisely measured with instruments. The analysis of a project defines the noise environment of the project area in terms of sound intensity and its effect on adjacent noise-sensitive land uses.

Measurement of Sound. Sound intensity is measured through the A-weighted scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies. Unlike linear units, such as inches or pounds, decibels are measured on a logarithmic scale, representing points on a sharply rising curve.

For example, 10 dB are 10 times more intense than 1 dB, 20 dB are 100 times more intense, and 30 dB are 1,000 times more intense. Thirty decibels (30 dB) represent 1,000 times as much acoustic energy as 1 dB. The decibel scale increases as the square of the change, representing the sound pressure energy. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10 dB increase in sound level is perceived by the human ear as only a doubling of the loudness of the sound. Ambient sounds generally range from 30 A-weighted decibels (dBA) (very quiet) to 100 dBA (very loud).

Sound levels are generated from a source, and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. For a single point source, sound levels decrease approximately 6 dB for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by stationary equipment. If noise is produced by a line source, such as highway traffic or railroad operations, the sound decreases 3 dB for each doubling of distance in a hard-site environment. Line source noise in a relatively flat environment with absorptive vegetation decreases 4.5 dB for each doubling of distance.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. Equivalent continuous sound level (L_{eq}) is the total sound energy of time-varying noise over a sample period. The predominant rating scales for human communities in the State of California are the L_{eq} and community noise equivalent level (CNEL) or the day-night average level (L_{dn}) based on dBA. CNEL is the time-varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and a 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale but without the adjustment for events occurring

during the evening hours. CNEL and L_{dn} are within 1 dBA of each other and are normally exchangeable. The noise adjustments are added to the noise events occurring during the more sensitive hours.

Other noise rating scales of importance when assessing the annoyance factor include the maximum noise level (L_{max}), which is the highest exponential time-averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis are specified in terms of maximum levels, denoted by L_{max} for short-term noise impacts. L_{max} reflects peak-operating conditions and addresses the annoying aspects of intermittent noise.

Another noise scale often used together with the L_{max} in noise ordinances for enforcement purposes is noise standards in terms of percentile exceedance in noise levels. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half the time, the noise level exceeds this level, and half the time, it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the L_{eq} and L_{50} are approximately the same.

Physiological Effects of Noise. Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions and thereby affecting blood pressure and functions of the heart and the nervous system. In comparison, extended periods of noise exposure above 90 dBA would result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear. This is called the threshold of pain. A sound level of 160–165 dBA will result in dizziness or loss of equilibrium. The ambient or background noise problem is widespread and generally more concentrated in urban areas than in less-developed areas.

Vibration. Vibration refers to groundborne noise and perceptible motion. Groundborne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors where the motion may be discernible; however, without the effects associated with the shaking of a building, there is less of an adverse reaction. Vibration energy propagates from a source through intervening soil and rock layers to the foundations of nearby buildings. The vibration then propagates from the foundation throughout the remainder of the structure. Building vibration may be perceived by the occupants as motion of building surfaces, rattling of items on shelves or hanging on walls, or as a low-frequency rumbling noise. The rumble noise is caused by the vibrating walls, floors, and ceilings that radiate sound waves. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by 10 dB or less. This is an order of magnitude below the damage threshold for normal buildings.

Typical sources of groundborne vibration are construction activities (e.g., blasting, pile driving, and operating heavy-duty earth-moving equipment), steel-wheeled trains, and occasional traffic on rough roads. Problems with groundborne vibration and noise from these sources are usually localized to areas within about 100 feet (ft) from the vibration source, although there are examples of groundborne vibration causing interference out to distances greater than 200 ft (Federal Transit Administration [FTA] May 2006). When roadways are smooth, vibration from traffic, even heavy trucks, is rarely perceptible. It is assumed for most projects that the roadway surface will be smooth enough that groundborne vibration from street traffic will not exceed the impact criteria; however, construction of a project could result in groundborne vibration that could be perceptible and annoying. Groundborne noise is not likely to be a problem because noise arriving via the normal airborne path usually will be greater than groundborne noise.

Groundborne vibration has the potential to disturb people as well as to damage buildings. It is not uncommon for construction processes such as blasting and pile driving to cause vibration of sufficient amplitudes to damage nearby buildings (FTA 2006). Groundborne vibration is usually measured in terms of vibration velocity, either the root-mean-square (RMS) velocity or the peak particle velocity (PPV). RMS is best for characterizing human response to building vibration, and PPV is used to characterize potential for building or structural damage. Ground vibrations from construction activities do not often reach the levels that can damage structures, but they can achieve the audible and sensate ranges in buildings very close to the site. Problems with groundborne vibration from construction sources are usually localized to areas within approximately 100 ft from the vibration source.

Factors that influence groundborne vibration and noise include the following:

- **Vibration Source:** Vehicle suspension, wheel types and condition, track/roadway surface, track support system, speed, transit structure, and depth of vibration source
- **Vibration Path:** Soil type, rock layers, soil layering, depth to water table, and frost depth
- **Vibration Receiver:** Foundation type, building construction, and acoustical absorption

Among the factors listed above, there are significant differences in the vibration characteristics when the source is underground compared to at the ground surface. In addition, soil conditions are known to have a strong influence on the levels of groundborne vibration. Among the most important factors are the stiffness and internal damping of the soil and the depth to bedrock.

Table 4.10.A illustrates human response to various vibration levels, as described in the FTA *Transit Noise and Vibration Impact Assessment* (FTA 2006).

Table 4.10.A: Human Response to Different Levels of Groundborne Noise and Vibration

Vibration Velocity Level	Noise Level		Human Response
	Low Frequency ¹	Mid Frequency ²	
65 VdB	25 dBA	40 dBA	Approximate threshold of perception for many humans. Low-frequency sound usually inaudible; mid-frequency sound excessive for quiet sleeping areas.
75 VdB	35 dBA	50 dBA	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find transit vibration at this level unacceptable. Low-frequency noise acceptable for sleeping areas; mid-frequency noise annoying in most quiet occupied areas.
85 VdB	45 dBA	60 dBA	Vibration acceptable only if there are an infrequent number of events per day. Low-frequency noise unacceptable for sleeping areas; mid-frequency noise unacceptable even for infrequent events with institutional land uses such as schools and churches.

Source: Federal Transit Administration *Transit Noise and Vibration Impact Assessment* (2006).

¹ Approximate noise level when vibration spectrum peak is near 30 Hz.

² Approximate noise level when vibration spectrum peak is near 60 Hz.

dBA = A-weighted decibels

VdB = velocity in decibels

4.10.2 Existing Environmental Setting

The approximately 5.8 acres (ac) Project site is located in Belmont Shore Beach Park in the southeastern portion of the City. The Project site is bounded by the Pacific Ocean to the south and the City’s Beach Maintenance Yard, a large parking lot that provides parking for visitors to the beach, the former Belmont Pool, beach volleyball, Rosie’s Dog Beach, and a boat launch to the southeast. Adjacent land uses to the north include a variety of one-story commercial businesses, the Belmont Shores Children’s Center, and residences located across Ocean Boulevard. Adjacent land uses to the west include Belmont Veterans Memorial Pier and parking lot, as well as the Surf Terrace apartment complex and Belmont Shore Condominiums (see Figure 3.2). The residences located across Ocean Boulevard are approximately 100 ft from the Project construction boundary. Residences at the Surf Terrace apartment complex to the west are approximately 80 ft from the Project construction boundary. The playground associated with the Children’s Center is located approximately 25 ft from the Project construction boundary. An existing passive park is located north of the former pool building and south of Olympic Plaza.¹ Primary access for parking to the Project site is provided to the east of the site at the Beach Parking Lot from Ocean Boulevard via Bennett Avenue. Secondary parking is from the Pier Parking Lot to the west of the site and is accessed from Ocean Boulevard via Termino Avenue.

The former pool complex located on the Project site consisted of an enclosed swimming pool, two outdoor pools (swimming and wading), a passive park on the north side of the pool building, locker rooms at the east end of the structure, and a restaurant at the west end of the structure. The former indoor pool was closed to the public on January 13, 2013, as a result of substandard seismic and structural conditions, and was demolished in February 2015 because of an imminent threat to public safety. The demolition of the structure was conducted under an emergency permit and, therefore, this Draft Environmental Impact Report (EIR) does not include analysis of the demolition of the Belmont Pool structure. The outdoor swimming pool and passive park remain open on the Project site. In

¹ This passive park was part of the 1968 Belmont Pool project and does not have a separate name.

addition, a temporary pool was constructed in the Beach Parking lot and opened in December 2013 to provide swimming facilities while the permanent facility was under construction.

Sensitive Land Uses in the Project Vicinity. Certain land uses are considered more sensitive to noise than others. Examples of these include residential uses, educational facilities, hospitals, childcare facilities, outdoor recreation areas, and senior housing. The sensitive land uses within the vicinity of the proposed Project include the existing Belmont Shores Children’s Center (Preschool/Child Care) facility located approximately 25 ft from the northern Project construction boundary, residences across East Ocean Boulevard to the northeast located approximately 100 ft from the northern Project construction boundary, and residences across Termino Avenue to the northwest located approximately 80 ft from the western Project construction boundary.

Overview of the Existing Noise Environment. The primary existing noise sources in the Project area are from vehicle traffic on Project area roadways. Other existing noise sources in the vicinity of the Project include activity associated with the temporary outdoor pool, which is used by clubs, local high schools, and the general public. Noise from motor vehicles is generated by engine vibrations, the interaction between the tires and the road, and the exhaust system. Traffic on Ocean Boulevard, Termino Avenue, and Bennett Avenue contribute to area ambient noise levels. Tables 4.10.B and 4.10.C provide the traffic noise levels along the roadways adjacent to the Project site under the existing conditions. These noise levels are representative of the worst-case scenario, which assumes no shielding exists between the traffic and the locations from which the noise contours are drawn.

4.10.3 Regulatory Setting

Federal Regulations and Policies.

Federal Transit Administration. The Federal Transit Administration (FTA) establishes acceptable levels of groundborne vibration for building types that are sensitive to vibration. These levels are based on the maximum levels for a single event. Additionally, in the *Transit Noise and Vibration Impact Assessment* (FTA 2006), the FTA provided groundborne vibration and noise impact criteria guidance. The criteria established by the FTA account for variation in project types, as well as the frequency of events, which differ widely among projects. Although the criteria are provided for community response to groundborne vibration from rapid rail transit systems, they also provide good guidelines for human response to vibration in general. Table 4.10.D lists the groundborne vibration and noise impact criteria for human annoyance. Vibration Category 1 land uses include vibration-sensitive research and manufacturing, hospitals with vibration-sensitive equipment, and university research operations. Vibration Category 2 land uses include all residential land uses and any buildings in which people sleep, such as hotels and hospitals. Vibration Category 3 land uses include schools, churches, other such institutions, and quiet offices.

Table 4.10.B: Existing Weekday Baseline Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (ft)	Centerline to 65 CNEL (ft)	Centerline to 60 CNEL (ft)	CNEL (dBA) 50 Ft from Centerline of Outermost Lane
Ocean Boulevard west of Redondo Avenue	25,230	< 50	75	155	65.1
Ocean Boulevard between Redondo Avenue and Loma Avenue	27,195	< 50	78	163	65.4
Ocean Boulevard between Loma Avenue and Mira-Mar Avenue	27,855	< 50	80	165	65.5
Ocean Boulevard between Mira-Mar Avenue and Termino Avenue	9,240	< 50	< 50	82	60.7
Ocean Boulevard between Termino Avenue and Bennett Avenue	9,575	< 50	< 50	84	60.9
Ocean Boulevard between Bennett Avenue and Granada Avenue	8,500	< 50	< 50	78	60.4
Ocean Boulevard east of Granada Avenue	7,730	< 50	< 50	74	60.0
Livingston Avenue between Mira-Mar Avenue and Termino Avenue	19,405	< 50	80	166	65.6
Livingston Avenue between Termino Avenue and 2nd Street	20,155	< 50	82	170	65.7
Livingston Avenue east of 2nd Street	3,190	< 50	< 50	< 50	55.8
2nd Street south of Livingston Avenue	20,860	< 50	< 50	104	62.4
Termino Avenue south of Ocean Boulevard	3,110	< 50	< 50	< 50	58.0
Termino Avenue between Ocean Boulevard and Livingston Avenue	3,495	< 50	< 50	56	58.6
Termino Avenue north of Livingston Avenue	830	< 50	< 50	< 50	49.9
Bennett Avenue south of Ocean Boulevard	1,120	< 50	< 50	< 50	51.2
Bennett Avenue north of Ocean Boulevard	740	< 50	< 50	< 50	49.4
Granada Avenue south of Ocean Boulevard	710	< 50	< 50	< 50	49.2
Granada Avenue north of Ocean Boulevard	1,500	< 50	< 50	< 50	52.5

Source: Compiled by LSA Associates, Inc. (March 2016).

Note: Traffic noise within 50 ft of the roadway centerline should be evaluated with site-specific information.

ADT = average daily traffic

CNEL = Community Noise Equivalent Level

dBA = A-weighted decibels

ft = feet

Table 4.10.C: Existing Saturday Baseline Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (ft)	Centerline to 65 CNEL (ft)	Centerline to 60 CNEL (ft)	CNEL (dBA) 50 Ft from Centerline of Outermost Lane
Ocean Boulevard west of Redondo Avenue	18,050	< 50	62	125	63.6
Ocean Boulevard between Redondo Avenue and Loma Avenue	19,720	< 50	65	132	64.0
Ocean Boulevard between Loma Avenue and Mira-Mar Avenue	20,655	< 50	67	136	64.2
Ocean Boulevard between Mira-Mar Avenue and Termino Avenue	8,540	< 50	< 50	78	60.4
Ocean Boulevard between Termino Avenue and Bennett Avenue	8,900	< 50	< 50	80	60.6
Ocean Boulevard between Bennett Avenue and Granada Avenue	7,705	< 50	< 50	73	59.9
Ocean Boulevard east of Granada Avenue	7,240	< 50	< 50	71	59.7
Livingston Avenue between Mira-Mar Avenue and Termino Avenue	12,785	< 50	63	127	63.8
Livingston Avenue between Termino Avenue and 2nd Street	14,490	< 50	67	137	64.3
Livingston Avenue east of 2nd Street	3,050	< 50	< 50	< 50	55.6
2nd Street south of Livingston Avenue	16,370	< 50	< 50	90	61.4
Termino Avenue south of Ocean Boulevard	2,990	< 50	< 50	< 50	57.9
Termino Avenue between Ocean Boulevard and Livingston Avenue	3,440	< 50	< 50	55	58.5
Termino Avenue north of Livingston Avenue	600	< 50	< 50	< 50	48.5
Bennett Avenue south of Ocean Boulevard	1,560	< 50	< 50	< 50	52.7
Bennett Avenue north of Ocean Boulevard	700	< 50	< 50	< 50	49.2
Granada Avenue south of Ocean Boulevard	1,150	< 50	< 50	< 50	51.3
Granada Avenue north of Ocean Boulevard	1,420	< 50	< 50	< 50	52.2

Source. Compiled by LSA Associates, Inc. (March 2016).

Note. Traffic noise within 50 ft of the roadway centerline should be evaluated with site-specific information.

ADT = average daily traffic

CNEL = Community Noise Equivalent Level

dBA = A-weighted decibels

ft = feet

Table 4.10.D: Groundborne Vibration and Noise Impact Criteria

Land Use Category	Groundborne Vibration Impact Levels (VdB re 1 micro inch/sec)			Groundborne Noise Impact Levels (dB re 20 micro Pascals)		
	Frequent Events ¹	Occasional Events ²	Infrequent Events ³	Frequent Events ¹	Occasional Events ²	Infrequent Events ³
Category 1: Buildings where vibration would interfere with interior operations.	65 VdB ⁴	65 VdB ⁴	65 VdB ⁴	N/A ⁵	N/A ⁵	N/A ⁵
Category 2: Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB	35 dBA	38 dBA	43 dBA
Category 3: Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB	40 dBA	43 dBA	48 dBA

Source: Federal Transit Administration *Transit Noise and Vibration Impact Assessment* (2006).

¹ Frequent Events is defined as more than 70 events per day.

² Occasional Events is defined as between 30 and 70 vibration events of the same source per day.

³ Infrequent Events is defined as fewer than 70 events per day.

⁴ This criterion limit is based on levels that are acceptable for most moderately sensitive equipment, such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the HVAC systems and stiffened floors.

⁵ Vibration-sensitive equipment is not sensitive to groundborne noise.

dB = decibels

dBA = A-weighted decibels

HVAC = heating, ventilation, and air conditioning

inch/sec = inches per second

N/A = Not Applicable

VdB = vibration velocity decibel

Based on the *Transit Noise and Vibration Impact Assessment* (FTA 2006), the potential construction vibration damage criteria vary. For example, as shown in Table 4.10.E, for a building that is constructed with reinforced concrete with no plaster, the FTA guidelines show that a vibration level of up to 102 velocity decibels (VdB) (equivalent to 0.5 inch per second [inch/sec] in RMS) (FTA 2006) is considered safe and would not result in any construction vibration damage. For a non-engineered timber and masonry building, the construction vibration damage criterion is 94 VdB (0.2 inches/sec in RMS). No specific thresholds have been adopted or recommended for commercial and office uses.

Table 4.10.E: Construction Vibration Damage Criteria

Building Category	PPV (inch/sec)	Approximate Lv ¹
Reinforced-concrete, steel or timber (no plaster)	0.5	102
Engineered concrete and masonry (no plaster)	0.3	98
Non-engineered timber and masonry buildings	0.2	94
Buildings extremely susceptible to vibration damage	0.12	90

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment* (May 2006).

¹ RMS VdB regarding 1 micro-inch/sec.

inch/sec = inches per second

Lv = $20 \log_{10} (V/V_{ref})$

PPV = peak particle velocity

RMS = root-mean-square

VdB = velocity in decibels

United States Environmental Protection Agency. In 1972, Congress enacted the United States Noise Control Act. This act authorized the Environmental Protection Agency (EPA) to publish descriptive data on the effects of noise and establish levels of sound “requisite to protect the public welfare with an adequate margin of safety.” These levels are separated into health (hearing loss levels) and welfare (annoyance levels). For protection against hearing loss, 96 percent of the population would be protected if sound levels are less than or equal to 70 dBA during a 24-hour period of time. At 55 dBA L_{dn} , 95 percent sentence clarity (intelligibility) may be expected at 11 ft, and no community reaction would occur. However, 1 percent of the population may complain about noise at this level, and 17 percent may indicate annoyance. The EPA cautions that these identified levels are not standards because they do not take into account the cost or feasibility of the levels.

State Regulations and Policies. The State of California has established regulations that help prevent adverse impacts to occupants of buildings located near noise sources. Referred to as the “State Noise Insulation Standard,” it requires buildings to meet performance standards through design and/or building materials that would offset any noise source in the vicinity of the receptor. State regulations include requirements for the construction of new hotels, motels, apartment houses, and dwellings other than detached single-family dwellings that are intended to limit the extent of noise transmitted into habitable spaces. These requirements are found in California Code of Regulations (CCR) Title 24 (known as the California Building Standards Code), Part 2 (known as the California Building Code [CBC]), Appendix Chapter 12.

California Health and Safety Code, Division 28, Noise Control Act. The California Noise Control Act states that excessive noise is a serious hazard to public health and welfare and that it is the policy of the State to provide an environment for all Californians that is free from noise that jeopardizes their health or welfare. The goal is to minimize the number of people that would be exposed to excessive noise but not to create an environment completely free from any noise.

California Government Code Section 65302. Section 65302(f) of the California Government Code and the Guidelines for the Preparation and Content of the Noise Element of the General Plan prepared by the California Department of Health Services and included in the 1990 State of California General Plan Guidelines published by the State Office of Planning and Research provides requirements and guidance to local agencies in the preparation of their Noise Elements.

The Guidelines require that major noise sources and areas containing noise-sensitive land uses be identified and quantified by preparing generalized noise exposure contours for current and projected conditions. Contours may be prepared in terms of either the CNEL or the Day-Night Average Level (L_{dn}), which are descriptors of total noise exposure at a given location for an annual average day. The CNEL and L_{dn} are generally considered to be equivalent descriptors of the community noise environment within plus or minus 1 dB.

The Noise Element (1975) contained in the City of Long Beach General Plan is in compliance with the Guidelines and is further discussed below.

Local Regulations and Policies.

City of Long Beach General Plan Noise Element. The Noise Element of the General Plan contains noise standards for mobile noise sources. These standards address the impacts of noise from adjacent roadways and airports. The City specifies outdoor and indoor noise limits for residential uses, places of worship, educational facilities, hospitals, hotels/motels, and commercial and other land uses. The noise standard for exterior living areas is 65 dBA CNEL. The indoor noise standard is 45 dBA CNEL, which is consistent with the standard in the California Noise Insulation Standard.

City of Long Beach Municipal Code. The City has adopted a quantitative Noise Control Ordinance, No. C-5371, Long Beach 1977 (Municipal Code, Chapter 8.80). The ordinance establishes maximum permissible hourly noise levels generated from operations for different districts throughout the City. Tables 4.10.F and 4.10.G list exterior noise and interior noise limits for various land uses.

Table 4.10.F: Exterior Noise Limits, L_N (dBA)

Receiving Land Use	Time Period	L ₅₀	L ₂₅	L ₈	L ₂	L _{max}
Residential (District One)	Night: 10:00 PM–7:00 AM	45	50	55	60	65
	Day: 7:00 AM–10:00 PM	50	55	60	65	70
Commercial (District Two)	Night: 10:00 PM–7:00 AM	55	60	65	70	75
	Day: 7:00 AM–10:00 PM	60	65	70	75	80
Industrial (District Three)	Anytime ¹	65	70	75	80	85
Industrial (District Four)	Anytime ¹	70	75	80	85	90

Source: City of Long Beach Municipal Code.

¹ For use at boundaries rather than for noise control within industrial districts.

dBA = A-weighted decibels

L_{max} = maximum sound level

L_N = percentile noise exceedance level

L₅₀ = noise level representing the median noise level; half the time, the noise level exceeds this level, and half the time, it is less than this level

L₂₅ = the noise level exceeded 25 percent of the time during a stated period

L₈ = the noise level exceeded 8 percent of the time during a stated period

L₂ = the noise level exceeded 2 percent of the time during a stated period

Table 4.10.G: Maximum Interior Sound Levels, L_N (dBA)

Receiving Land Use	Time Interval	L ₈	L ₂	L _{max}
Residential	10:00 PM–7:00 AM	35	40	45
	7:00 AM–10:00 PM	45	50	55
School	7:00 AM–10:00 PM (while school is in session)	45	50	55
Hospital and other noise-sensitive zones	Anytime	40	45	50

Source: City of Long Beach Municipal Code.

dBA = A-weighted decibels

L_{max} = maximum sound level

L_N = percentile noise exceedance level

L₈ = the noise level exceeded 8 percent of the time during a stated period

L₂ = the noise level exceeded 2 percent of the time during a stated period

The City's Noise Control Ordinance (Section 8.80.202) governs the time of day that construction work can be performed. The Noise Ordinance prohibits construction, drilling, repair, remodeling, alteration, or demolition work between the hours of 7:00 p.m. and 7:00 a.m. on weekdays or federal holidays (considered a weekday) if the noise would create a disturbance across a residential or commercial property line or violate the quantitative provisions of the ordinance, except for emergency work authorized by the building official. The Noise Ordinance also prohibits construction, drilling, repair, remodeling, alteration, or demolition work between the hours of 7:00 p.m. on Friday and 9:00 a.m. on Saturday and after 6:00 p.m. on Saturday, except for emergency work authorized by the building official. No construction, drilling, repair, remodeling, alteration, or demolition work shall occur at any time on Sundays, except for emergency work authorized by the building official.

4.10.4 Impact Significance Criteria

The thresholds for impacts related to noise used in this analysis are consistent with Appendix G of the *State California Environmental Quality Act (CEQA) Guidelines*. The proposed Project may be deemed to have a significant impact with respect to noise if it would cause:

- Threshold 4.10.1:** Exposure of persons to or generation of noise levels in excess of standards established in the local General Plan or Noise Ordinance, or applicable standards of other agencies;
- Threshold 4.10.2:** Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels;
- Threshold 4.10.3:** A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- Threshold 4.10.4:** A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- Threshold 4.10.5:** For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, if the project would expose people residing or working in the project area to excessive noise levels; or
- Threshold 4.10.6:** For a project within the vicinity of a private airstrip, if the project would expose people residing or working in the project area to excessive noise levels.

During the scoping process, it was determined that no noise impacts associated with private airstrips would occur upon implementation of the proposed Project because the proposed Project is not located within 2 miles (mi) of a public airport, within the vicinity of a private airstrip, or within an airport land use plan (Thresholds 4.10.5 and 4.10.6). Therefore, these issues are not discussed further in this Draft EIR. Refer to Appendix A, Initial Study (IS)/NOP, for additional discussion.

4.10.5 Project Impacts

The proposed Project would replace the former Belmont Pool and provide the City with a new, modern pool complex. The proposed Project includes the construction and operation of a replacement

pool complex that includes indoor and outdoor pool components. Typical daily operation of the proposed Project would include daily use by local high school swimming and water polo teams for training; swimming, diving, and water polo clubs; and the general public, including recreational swimming, lap swimming for fitness, and swim lessons. Occasionally throughout the year, the proposed Project is anticipated to facilitate special events such as high school and collegiate swimming and water polo competitions. Both daily operations and special events have the potential to occur at either the indoor pools or the outdoor pools. The proposed Project includes a Public Address (PA) system with approximately seven outdoor speakers aimed down at the pool and six temporary speakers that could be installed for outdoor special events. Special events are anticipated to be from 2–4 hours in length and would occur at various times during the day, with the possibility of them also being held at night and lasting until the close of the facility at 10:00 p.m. The following impacts of the proposed Project have been identified based on Project characteristics and the significance thresholds defined above.

CEQA Baseline. At the time the NOP was issued, the Project site contained both the Belmont Pool facilities and the outdoor temporary pool (opened in December 2013 to provide swimming facilities while the permanent facility was under construction). Although the site contained the former Belmont Pool building at the time of the NOP, the facility was subsequently demolished in February 2015 to alleviate an imminent public safety threat due to the seismically unsafe condition of the building.

Although the former facility was present on the site for approximately 45 years and represents the historic use of the site, the activities associated with the temporary outdoor pool represent a more accurate portrayal of the existing noise conditions for the site. The temporary outdoor pool is currently used by clubs, local high schools, and the general public, and creates noise associated with spectators, whistles and recreational activities. In addition, the temporary outdoor pool is part of the baseline condition because it was opened prior to the release of the second NOP issued by the City for the proposed Project.

Threshold 4.10.1: Would the project cause exposure of persons to or generation of noise levels in excess of standards established in the local General Plan or Noise Ordinance, or applicable standards of other agencies?

Less than Significant After Mitigation.

Traffic Noise. The Federal Highway Administration (FHWA) highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate traffic-related noise conditions in the vicinity of the Project site. The resultant noise levels were weighted and summed over a 24-hour period in order to determine the CNEL values. The existing traffic volumes presented in Section 4.12, Transportation and Traffic, of this Draft EIR were used to evaluate existing traffic noise on roadway segments in the Project vicinity for the noise analysis. Tables 4.10.B and 4.10.H show the existing weekday traffic noise levels without and with the Project, respectively. Tables 4.10.C and 4.10.I show the existing Saturday traffic noise levels without and with the Project, respectively. As previously stated, these noise levels represent the worst-case scenarios, which assume that no shielding is provided between the traffic and the locations where the noise contours are drawn.

Table 4.10.H: Existing Weekday With Project Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (ft)	Centerline to 65 CNEL (ft)	Centerline to 60 CNEL (ft)	CNEL (dBA) 50 Ft from Centerline of Outermost Lane	Increase from Baseline Conditions (dBA)
Ocean Boulevard west of Redondo Avenue	26,110	< 50	77	158	65.2	0.1
Ocean Boulevard between Redondo Avenue and Loma Avenue	28,505	< 50	81	168	65.6	0.2
Ocean Boulevard between Loma Avenue and Mira-Mar Avenue	29,095	< 50	82	170	65.7	0.2
Ocean Boulevard between Mira-Mar Avenue and Termino Avenue	10,435	< 50	< 50	88	61.3	0.6
Ocean Boulevard between Termino Avenue and Bennett Avenue	10,815	< 50	< 50	90	61.4	0.5
Ocean Boulevard between Bennett Avenue and Granada Avenue	9,590	< 50	< 50	84	60.9	0.5
Ocean Boulevard east of Granada Avenue	8,360	< 50	< 50	77	60.3	0.3
Livingston Avenue between Mira-Mar Avenue and Termino Avenue	19,555	< 50	80	167	65.6	0.0
Livingston Avenue between Termino Avenue and 2nd Street	20,420	< 50	83	172	65.8	0.1
Livingston Avenue east of 2nd Street	3,190	< 50	< 50	< 50	55.8	0.0
2nd Street South of Livingston Avenue	21,110	< 50	< 50	105	62.5	0.1
Termino Avenue south of Ocean Boulevard	3,930	< 50	< 50	60	59.1	1.1
Termino Avenue between Ocean Boulevard and Livingston Avenue	3,955	< 50	< 50	60	59.1	0.5
Termino Avenue north of Livingston Avenue	910	< 50	< 50	< 50	50.3	0.4
Bennett Avenue south of Ocean Boulevard	3,600	< 50	< 50	< 50	56.3	5.1
Bennett Avenue north of Ocean Boulevard	740	< 50	< 50	< 50	49.4	0.0
Granada Avenue south of Ocean Boulevard	710	< 50	< 50	< 50	49.2	0.0
Granada Avenue north of Ocean Boulevard	1,810	< 50	< 50	< 50	53.3	0.8

Source. Compiled by LSA Associates, Inc., (March 2016).

Note. Traffic noise within 50 ft of the roadway centerline should be evaluated with site-specific information.

ADT = average daily traffic

CNEL = Community Noise Equivalent Level

dBA = A-weighted decibels

ft = feet

Table 4.10.I: Existing Saturday With Project Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (ft)	Centerline to 65 CNEL (ft)	Centerline to 60 CNEL (ft)	CNEL (dBA) 50 Ft from Centerline of Outermost Lane	Increase from Baseline Conditions (dBA)
Ocean Boulevard west of Redondo Avenue	20,210	< 50	66	134	64.1	0.5
Ocean Boulevard between Redondo Avenue and Loma Avenue	23,050	< 50	71	146	64.7	0.7
Ocean Boulevard between Loma Avenue and Mira-Mar Avenue	23,655	< 50	72	149	64.8	0.6
Ocean Boulevard between Mira-Mar Avenue and Termino Avenue	11,540	< 50	< 50	94	61.7	1.3
Ocean Boulevard between Termino Avenue and Bennett Avenue	12,280	< 50	< 50	98	62.0	1.4
Ocean Boulevard between Bennett Avenue and Granada Avenue	10,665	< 50	< 50	90	61.4	1.5
Ocean Boulevard east of Granada Avenue	8,940	< 50	< 50	80	60.6	0.9
Livingston Avenue between Mira-Mar Avenue and Termino Avenue	12,895	< 50	63	128	63.8	0.0
Livingston Avenue between Termino Avenue and 2nd Street	15,215	< 50	69	142	64.5	0.2
Livingston Avenue east of 2nd Street	3,050	< 50	< 50	< 50	55.6	0.0
2nd Street south of Livingston Avenue	17,060	< 50	< 50	92	61.5	0.1
Termino Avenue south of Ocean Boulevard	5,230	< 50	< 50	71	60.3	2.4
Termino Avenue between Ocean Boulevard and Livingston Avenue	4,560	< 50	< 50	65	59.7	1.2
Termino Avenue north of Livingston Avenue	850	< 50	< 50	< 50	50.0	1.5
Bennett Avenue south of Ocean Boulevard	8,320	< 50	< 50	55	59.9	7.2
Bennett Avenue north of Ocean Boulevard	700	< 50	< 50	< 50	49.2	0.0
Granada Avenue south of Ocean Boulevard	1,150	< 50	< 50	< 50	51.3	0.0
Granada Avenue north of Ocean Boulevard	2,260	< 50	< 50	< 50	54.3	2.1

Source. Compiled by LSA Associates, Inc., (March 2016).

Note. Traffic noise within 50 ft of the roadway centerline should be evaluated with site-specific information.

ADT = average daily traffic

CNEL = Community Noise Equivalent Level

dBA = A-weighted decibels

ft = feet

As shown in Tables 4.10.H and 4.10.I, project-related traffic noise levels would have a traffic noise increase of up to 2.4 dBA, except for Bennett Avenue south of Ocean Boulevard. Although traffic noise levels along Bennett Avenue south of Ocean Boulevard would increase by up to 7.2 dBA, this roadway segment is the entrance to the proposed Project, and there are no off-site noise-sensitive land uses adjacent to this segment of the road. The traffic noise increases of up to 2.4 dBA along other roadway segments in the vicinity of the Project are less than the 3 dBA threshold normally perceptible by the human ear in an outdoor environment. Therefore, no significant traffic noise

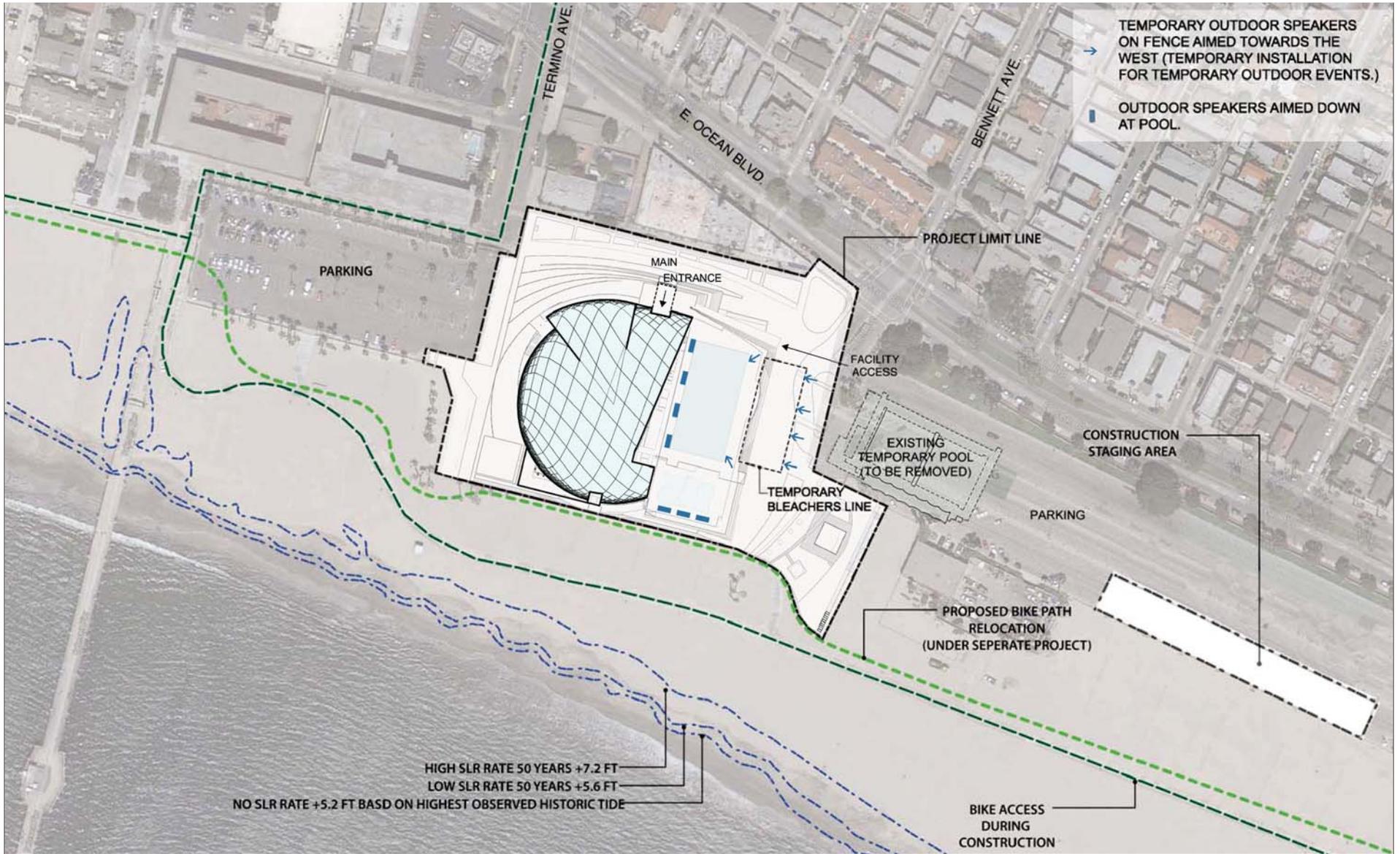
impacts would occur on off-site noise-sensitive land uses. No mitigation measures for off-site uses would be required. Also, on-site traffic noise impacts would not occur because the Project is not considered to be noise sensitive, and mitigation measures for on-site uses are not required.

Long-Term Operation. A reference noise level from a PA sound system was obtained from a noise level measurement conducted by RECON Environmental, Inc., at a high school championship football game (RECON 2003). Each loudspeaker was estimated to generate an hourly equivalent (L_{eq}) noise level of 71.3 dBA at a distance of 50 ft. Crowd noise was measured to be 65 dBA L_{eq} at 75 ft. It is anticipated that reference noise level measurements obtained from RECON at the high school championship football game would be similar to typical daily events or special events at the proposed Project.

Activities from the outdoor pool during practices and regular events would not involve a substantial number of spectators, whistles from officiating water polo games, starting horns, or the use of a PA sound system. Without a substantial number of spectators or without the use of a PA sound system, noise levels generated from the outdoor pool under normal operations would be less than 50 dBA L_{eq} at the perimeter of the facility. Therefore, noise generated from the outdoor pool during practices and regular events would not have the potential to impact nearby noise-sensitive uses. However, noise levels generated from the outdoor pool during special events would have the potential to impact nearby noise-sensitive uses because these events would involve a substantial number of spectators, whistles from officiating water polo games, starting horns, and the use of a PA sound system. The conceptual configuration showing how the speakers would be installed is presented in Figure 4.10.1 (as well as in Figure 3.8 in Chapter 3.0, Project Description). Noise levels generated from the indoor pool would not impact the closest residences at the Belmont Shore Condominiums, which is located approximately 180 ft from the building edge of the proposed Project because the combination of building attenuation and distance attenuation would be 46 dBA. A conservative building interior-to-exterior attenuation was assumed to be 15 dBA (measured at 5 ft from the building edge), and the distance attenuation was calculated to be 31 dBA based on 5 ft from the building edge to 180 ft at the closest residences.

Crowd/Spectator Noise.

Exterior Noise. The proposed temporary outdoor seating is located approximately 190 ft from the Belmont Shores Children's Center to the north, 325 ft from the existing residences to the northeast (across from Ocean Boulevard), and 320 ft from existing residences to the northwest (across from Termino Avenue). A noise level reduction of 8 dBA was estimated for the Belmont Shores Children's Center due to the partial shielding provided by the proposed building structures on the west side of the Project and the existing block wall surrounding the Children's Center outdoor uses. A noise level reduction of 5 dBA was estimated for the two residential locations because there is partial shielding provided by the existing building to the north and the proposed building structures on the west side of the Project. The playground associated with the Belmont Shores Children's Center, the residences to the northeast, and the residences to the northwest may be subject to exterior noise levels from crowd noise reaching 48.9, 47.3, and 47.4 dBA L_{eq} (1-hour), respectively. Spectator noise levels from the temporary outdoor seating would not



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FIGURE 4.10.1



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exceed any of the City's daytime exterior L_{50} , L_{25} , L_8 , L_2 , and L_{\max} standards of 50, 55, 60, 65, and 70 dBA, respectively, at the Belmont Shores Children's Center or the closest residences.

Interior Noise. Based on the typical sound level reductions of buildings identified in Protective Noise Levels, Condensed Version of EPA Levels Document (November 1978, EPA-550/9-79-100), standard building construction in Southern California would provide 24 dBA (the national average is 25 dBA) or more in noise reduction from exterior to interior with windows and doors closed. With windows and doors open, the exterior-to-interior noise reduction drops to 12 dBA (the national average is 15 dBA) or more. Classrooms associated with the Belmont Shores Children's Center, the residences to the northeast, and the residences to the northwest may be subject to interior noise levels from crowd noise reaching up to 24.9 dBA L_{eq} , 23.3 dBA L_{eq} , and 23.4 dBA L_{eq} (1-hour), respectively, with windows and doors closed. Classrooms associated with the Belmont Shores Children's Center, the residences to the northeast, and the residences to the northwest may be subject to interior noise levels from crowd noise reaching up to 36.9 dBA L_{eq} , 35.3 dBA L_{eq} , and 35.4 dBA L_{eq} (1 hour), respectively, with windows and doors open. Therefore, spectator noise levels at the outdoor seating area would not exceed any of the City's daytime interior L_8 , L_2 , and L_{\max} standards of 45 dBA, 50 dBA, and 55 dBA, respectively, at either the Belmont Shores Children's Center or the two residential locations. Since the proposed Project is not expected to be used after 10:00 p.m., no nighttime operational noise would occur and, therefore, no violation of the City's nighttime noise standards would occur.

Public Address System Noise. The proposed outdoor pool would have four different outdoor speaker locations with a total of thirteen speakers (Figure 4.10.1). Of the thirteen speakers, seven speakers are permanently installed, and would be aimed down at the pool. The remaining six are temporary speakers that would be installed for outdoor special events. Four permanent outdoor overhead speakers are located on the west side of the pool. The centerpoint of this group of speakers is located approximately 412 ft from the Belmont Shores Children's Center, 328 ft from the residences to the northeast (across from Ocean Boulevard), and 589 ft from the residences to the northwest (across from Termino Avenue). Three permanent outdoor overhead speakers are located near the recreation pool. The centerpoint of this group of speakers is located approximately 444 ft from the Belmont Shores Children's Center, 527 ft from the residences to the northeast (across from Ocean Boulevard), and 538 ft from the residences to the northwest (across from Termino Avenue). Four outdoor temporary speakers are to be located on the east side of the temporary outdoor seating. The centerpoint of this group of speakers is located approximately 307 ft from the Belmont Shores Children's Center, 440 ft from the residences to the northeast (across from Ocean Boulevard), and 426 ft from the residences to the northwest (across from Termino Avenue). The remaining two temporary outdoor speakers are to be located on the east side of the pool, one speaker at each end of the pool facing each other. The centerpoint of this group of speakers is located approximately 349 ft from the Belmont Shores Children's Center, 363 ft from the residences to the northeast (across from Ocean Boulevard), and 509 ft from the residences to the northwest (across from Termino Avenue).

Noise levels generated from the speakers located near the temporary seating and the recreation pool are directed downward and would have a 5 dBA noise attenuation due to directivity at the Belmont Shores Children's Center, for the residences to the northeast (across from Ocean Boulevard), and for the residences to the northwest (across from Termino Avenue). Noise levels generated from the

speakers located across the pool from the temporary seating are directed west towards the temporary seating and would have a 5 dBA noise attenuation due to directivity for the residences to the northeast (across from Ocean Boulevard) and a 1 dBA noise attenuation for the Belmont Shores Children's Center and residences to the northwest (across from Termino Avenue). Also, as mentioned above, a noise level reduction of 8 dBA was estimated for the Belmont Shores Children's Center due to the partial shielding provided by the proposed building structures on the west side of the Project and the existing block wall surrounding the Children's Center outdoor uses. A noise level reduction of 5 dBA was estimated for the residences to the northeast (across from Ocean Boulevard) and residences to the northwest (across from Termino Avenue) because there is partial shielding provided by the existing building to the north and the proposed building structure on the west side of the Project.

Exterior Noise. The playground associated with the Belmont Shores Children's Center, outdoor living areas associated with residences to the northeast (across from Ocean Boulevard), and residences to the northwest (across from Termino Avenue) may be subject to exterior noise levels from speaker noise reaching up to 54.2, 54.5, and 54.3 dBA L_{eq} (1-hour), respectively. Therefore, speaker noise levels would potentially exceed the City's daytime exterior L_{50} standard of 50 dBA at the playground of the Belmont Shores Children's Center, at the outdoor living areas of the residences to the northeast (across from Ocean Boulevard) and the residences to the northwest (across from Termino Avenue); mitigation is discussed below.

Interior Noise. Based on standard building attenuation with windows and doors closed as mentioned above, classrooms associated with the Belmont Shores Children's Center, indoor areas at the residences to the northeast (across from Ocean Boulevard) and the residences to the northwest (across from Termino Avenue) may be subject to interior noise levels reaching up to 30.2, 30.5, and 30.3 dBA L_{eq} (1-hour), respectively, with windows and doors closed. Classrooms associated with the Belmont Shores Children's Center, the residences to the northeast, and the residences to the northwest may be subject to interior noise levels from crowd noise reaching up to 42.2, 42.5, and 42.3 dBA L_{eq} (1 hour), respectively, with windows and doors open. Therefore, speaker noise levels would not exceed the City's daytime interior noise standard at Belmont Shores Children's Center and the two residential locations. Since the proposed Project is not expected to be used after 10:00 p.m., no nighttime operational noise would occur and, therefore, no violation of the City's nighttime noise standards would occur.

Combined Noise Levels.

Exterior Noise. The combined noise levels from the crowd and speaker noise would result in an exterior noise level of 55.3 dBA L_{eq} (1-hour) at the playground associated with the Belmont Shores Children's Center, 55.3 dBA L_{eq} (1-hour) at the outdoor living areas of the residences to the northeast (across from Ocean Boulevard), and 55.1 dBA L_{eq} (1-hour) at the outdoor living areas of the residences to the northwest (across from Termino Avenue). The combined noise levels at the Belmont Shores Children's Center and the two residential locations would potentially exceed the City's daytime exterior L_{50} and L_{25} standard of 50 and 55 dBA, respectively. Implementation of Mitigation Measure 4.10.1, which requires measures to reduce

noise levels from the speakers, would reduce the combined noise level to less than the City's exterior noise standards. Therefore, this impact would be less than significant after mitigation.

Interior Noise. The combined interior noise level with windows and doors closed would be 31.3 dBA L_{eq} (1-hour) in the classroom associated with the Belmont Shores Children's Center, 31.3 dBA L_{eq} (1-hour) at the residences to the northeast (across from Ocean Boulevard), and 31.1 dBA L_{eq} (1-hour) at the residences to the northwest (across from Termino Avenue). The combined interior noise level with windows and doors open would be 43.3 dBA L_{eq} (1 hour) in the classroom associated with the Belmont Shores Children's Center, 43.3 dBA L_{eq} (1 hour) at the residences to the northeast (across from Ocean Boulevard), and 43.1 dBA L_{eq} (1 hour) at the residences to the northwest (across from Termino Avenue). The combined noise levels at the Belmont Shores Children's Center and the two residential locations would not exceed the City's daytime interior standard. Since the proposed Project is not expected to be used after 10:00 p.m., no nighttime operational noise would occur, and no violation of the City's nighttime noise standards would occur.

Threshold 4.10.2: Would the project cause exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact. The primary source of vibration during construction would be generated by front-end loaders, small bulldozers, dump trucks, hydraulic hammer, and pile drivers. The closest heavy construction activities to receptors would be located approximately 25 ft from the Belmont Shore Children's Center and other commercial buildings. The nearest residences to the northeast and northwest are located approximately 100 ft and 80 ft, respectively, from heavy construction activities. The estimated vibration level at the closest residence to the northeast and northwest would be 0.049 inch/sec and 0.097 inch/sec, respectively. The estimated vibration levels at the Belmont Shores Children's Center and other commercial buildings would be 0.101 inch/sec. These construction vibration levels are below the damage threshold of 0.3 inch/sec for older residential buildings and 0.5 inch/sec for modern industrial commercial buildings. Therefore, the proposed Project would result in a less than significant impact, and no mitigation is required.

Threshold 4.10.3: Would the project cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant Impact. As mentioned above, Tables 4.10.H and 4.10.I show that the Project-related traffic noise levels would have a traffic noise increase of up to 2.4 dBA, except for Bennett Avenue south of Ocean Boulevard. Although traffic noise levels along Bennett Avenue south of Ocean Boulevard would increase by up to 7.2 dBA, this roadway segment is the entrance to the proposed Project and there are no off-site noise-sensitive land uses adjacent to it. The traffic noise increases of up to 2.4 dBA along other roadway segments in the Project area are less than the 3 dBA threshold normally perceptible by the human ear in an outdoor environment. Therefore, no significant traffic noise impacts or permanent increase in ambient noise levels would occur in the Project vicinity or to off-site noise-sensitive land uses. No mitigation measures are required.

Threshold 4.10.4: Would the project cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant Impact. Two types of short-term noise impacts would occur during Project construction. The first type would be from construction crew commutes and the transport of construction equipment and materials to the Project site. The pieces of heavy equipment for grading and construction activities will be moved on site, will remain for the duration of each construction phase, and will not add to the daily traffic volume in the Project vicinity. A high single-event noise exposure potential at a maximum level of 84 dBA L_{max} from trucks passing at 50 ft will exist. However, the projected construction traffic will be minimal when compared to existing traffic volumes on Ocean Boulevard and other affected streets, and its associated long-term noise level change will not be perceptible. Therefore, short-term construction-related worker commutes and equipment transport noise impacts would be less than significant.

The second type of short-term noise impacts is related to the noise generated by heavy construction equipment operating at the Project site. Construction is performed in discrete steps, each of which has its own mix of equipment and consequently its own noise characteristics. These various sequential phases would change the character of the noise generated and the noise levels within the Project area as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table 4.10.J lists typical construction equipment noise levels (L_{max}) recommended for noise impact assessments, based on a distance of 50 ft between the equipment and a noise receiver.

Typical noise levels at 50 ft from an active construction area can range up to 91 dBA L_{max} during the noisiest construction phases. The site preparation phase, which includes grading and paving, tends to generate the highest noise levels because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery such as backfillers, bulldozers, and front-end loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 or 4 minutes at lower power settings.

Construction of the proposed Project is expected to require the use of graders, bulldozers, water trucks, and pickup trucks. Noise associated with the use of construction equipment is estimated to be between 75 and 85 dBA L_{max} at a distance of 50 ft from the active construction area for the grading phase. As seen in Table 4.10.J, the maximum noise level generated by each grader is assumed to be approximately 85 dBA L_{max} at 50 ft from the grader in operation. Each dozer would generate approximately 82 dBA L_{max} at 50 ft. The maximum noise level generated by water trucks/pickup trucks is approximately 75 dBA L_{max} at 50 ft from these vehicles. Each doubling of the sound source with equal strength increases the noise level by 3 dBA. Each piece of construction equipment operates as an individual point source. The worst-case composite noise level at the nearest residence during this phase of construction would be 87 dBA L_{max} (at a distance of 50 ft from an active construction area).

Table 4.10.J. Typical Construction Equipment Noise Levels

Equipment Description	Spec 721.560 ¹ L _{max} at 50 ft	Actual Measured ² L _{max} at 50 ft
Backhoes	80	78
Compactor (ground)	80	83
Cranes	85	81
Dozers	85	82
Dump Truck	84	76
Excavators	85	81
Flat Bed Trucks	84	74
Front-End Loaders	80	79
Graders	85	N/A ³
Jackhammer	85	89
Pickup Truck	55	75
Pneumatic Tools	85	85
Pumps	77	81
Rock Drill	85	81
Roller	85	80
Scrapers	85	84
Tractors	84	N/A
Impact Pile Driver	95	101

Source: Federal Highway Administration Roadway Construction Noise Model (January 2006).

Note: Noise levels reported in this table are rounded to the nearest whole number.

¹ Maximum noise levels were developed based on Spec 721.560 from the Central Artery/Tunnel (CA/T) program to be consistent with the City of Boston’s Noise Code for the “Big Dig” project.

² The maximum noise level was developed based on the average noise level measured for each piece of equipment during the CA/T program in Boston, Massachusetts.

³ Since the maximum noise level based on the average noise level measured for this piece of equipment was not available, the maximum noise level developed based on Spec 721.560 was used.

ft = foot/feet

L_{max} = maximum instantaneous sound level

N/A = not applicable

In addition to standard construction equipment, the Project anticipates the use of hydraulic hammer pile drivers. Noise generated by a hydraulic hammer pile driver was evaluated to be similar as a typical pile driver. Table 4.10.J shows that a typical pile driver generates noise levels of approximately 95 dBA L_{max} at 50 ft. If pile driving is conducted concurrently with site preparation, the construction site could potentially generate noise levels of 96 dBA L_{max} at a distance of 50 ft.

The following land uses are located within the vicinity of the proposed construction activities:

- **Residential Uses.** The closest residences to the northeast and northwest are located approximately 100 ft and 80 ft from the Project construction boundary and may be subjected to short-term noise reaching 90 and 92 dBA L_{max}, respectively, generated by the proposed Project construction activities.
- **Belmont Shores Children’s Center.** The Belmont Shores Children’s Center is located approximately 25 ft from the construction boundary and may be subject to short-term noise reaching 102 dBA L_{max} or higher generated by construction activities at the Project site.

The closest existing sensitive receptors would be subject to short-term noise levels that would be higher than existing ambient noise levels in the Project area but would no longer occur once construction of the Project is completed. In addition, noise generated from construction activities would be intermittent and temporary. Section 8.80.202 of the City's Municipal Code allows elevated construction-related noise levels as long as the construction activities are limited to the hours specified. Adherence to the City's noise regulations and implementation of Mitigation Measures 4.10.2 and 4.10.3, which require standard conditions for construction and conducting a preconstruction community meeting, would reduce construction noise impacts to sensitive receptors. Therefore, temporary increases in ambient noise levels in the proposed Project vicinity associated with Project construction would be reduced to less than significant levels.

4.10.6 Cumulative Impacts

The cumulative study area for construction noise impacts is localized to the Project site and properties immediately adjacent to construction activities. In general, only projects occurring adjacent to or very close to the Project site are considered to be within the cumulative noise study area due to the localized effects of noise. Currently, there are no proposed or approved but not yet fully constructed projects within the cumulative noise study area for the proposed Project. Because construction noise and vibration are localized and rapidly attenuate within an urban environment, other related projects are located too far from the Project site to contribute to cumulative impacts related to noise levels due to construction activities. Construction activity at any related project site would not result in a noticeable increase in noise to sensitive receptors adjacent to the proposed Project site. Furthermore, all related projects would be required to comply with the City Noise Control Ordinance. Therefore, cumulative construction impacts would be less than significant.

As a rule of thumb, it takes a doubling of noise-generating sources, such as vehicles or visitors, to result in an increase of 3 dBA. Operations associated with the proposed Project are not anticipated to lead to a substantial increase in the number of visitors and vehicles to the Project site. Therefore, the long-term ambient noise levels associated with increased traffic are not anticipated to be significant as a result of the proposed Project, would not contribute substantially to cumulative roadway noise impacts, and would have a less than cumulatively considerable impact. Also, since no cumulative projects were identified for the cumulative noise study area, the proposed Project would not contribute to off-site cumulative noise impacts from on-site activities and would have a less than cumulatively considerable impact.

4.10.7 Level of Significance Prior to Mitigation

The proposed Project would not result in any impacts related to excessive noise levels associated with a public or private airport/airstrip. The proposed Project would not contribute substantially to cumulative construction or operational noise levels, and cumulative impacts would be less than significant. However, the proposed Project could result in potentially significant impacts related to on-site construction and operational noise levels related to spectator and PA systems sources. These impacts would be potentially significant prior to mitigation. Potential impacts related to groundborne vibration and noise levels would be less than significant.

4.10.8 Mitigation Measures

The following mitigation measures are incorporated to offset the potentially significant operational and construction-related noise impacts of the proposed Project.

Mitigation Measure 4.10.1: Prior to issuance of the occupancy permit, the City of Long Beach's (City) Development Services Director, or designee, shall verify that a sound engineer has designed the permanent and temporary sound systems such that the City's exterior noise standards (daytime exterior noise level of 50 dBA L₅₀) are not exceeded at the surrounding sensitive land uses. Measures capable of reducing the noise levels include, but are not limited to:

- Reducing the source levels;
- Reducing the speaker elevations;
- Directing the speakers away from adjacent noise-sensitive land uses; and
- Using highly directional speakers.

Mitigation Measure 4.10.2: Prior to issuance of demolition or grading permits, the City of Long Beach's (City) Development Services Director, or designee, shall verify that construction and grading plans include the following conditions to reduce potential construction noise impacts on nearby sensitive receptors:

- During all site excavation and grading, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards;
- The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the Project site;
- The construction contractor shall locate equipment staging to create the greatest distance between construction-related noise sources and noise-sensitive receptors nearest the Project site during all Project construction;
- The construction contractor shall ensure that engine idling from construction equipment (i.e., bulldozers and haul trucks) is limited to a maximum of 5 minutes at any given time; and
- The construction contractor shall ensure that all construction activities are scheduled to avoid operating several pieces of heavy equipment simultaneously.
- Construction, drilling, repair, remodeling, alteration, or demolition work shall be limited to the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday, and 9:00 a.m. to 6:00 p.m. on

Saturday. In accordance with City standards, no construction activities are permitted outside of these hours.

Mitigation Measure 4.10.3: Prior to issuance of a grading permit, the City of Long Beach Tidelands Capital Improvement Division shall hold a community preconstruction meeting in concert with the construction contractor to provide information to the public regarding the construction schedule. The construction schedule information shall include the duration of each construction activity and the specific location, days, frequency, and duration of the pile driving that will occur during each phase of the Project construction. Public notification of this meeting shall be undertaken in the same manner as the Notice of Availability mailings for this Draft Environmental Impact Report.

4.10.9 Level of Significance after Mitigation

Implementation of Mitigation Measures 4.10.1, 4.10.2, and 4.10.3 would reduce operational and construction-related noise impacts on off-site noise-sensitive land uses to less than significant levels.

4.11 RECREATION

This section analyzes the potential recreation impacts associated with construction and operation of the proposed Belmont Pool Revitalization Project (proposed Project). This section also addresses the proposed impacts to recreation resources with consideration of local, State, and California Coastal Commission (Coastal Commission) policies; and provides recommended mitigation measures pursuant to the California Environmental Quality Act (CEQA) where applicable. The analysis in this section is based on the Open Space and Recreation Element of the City of Long Beach (City) General Plan and the Long Beach Department of Parks, Recreation, and Marine Departmental Strategic Plan. These documents are available for review at the City of Long Beach Department of Development Services.

Scoping Process

The City of Long Beach distributed the first Notice of Preparation (NOP) for this Draft Environmental Impact Report (EIR) from April 18 to May 17, 2013. The City received three comment letters in response to the original NOP. No comments related to recreation were received in response to the original NOP circulated for the proposed Project. Due to revisions in the Project Description, the City re-issued the NOP for the EIR between April 9, 2014, and May 8, 2014. The City received five comment letters in response to the re-issued NOP during the public review period, including a written comment from Lucy Johnson, community member and organizer of the Facebook page, “Rebuild Belmont Plaza Pool.” Ms. Johnson’s letter, dated April 15, 2014, recommended that the pool design be consistent with the recreational needs of the Long Beach community and swimming industry at large. In response, the City has engaged the local swimming community stakeholders, including Ms. Johnson, during several meetings to address the desires of the public while balancing the requirements and limitations of the City.

4.11.1 Methodology

The analysis in this section addresses issues relating to recreational facilities and the provision of recreational opportunities and services that may be affected by the proposed Project. Impacts to recreational facilities in and around the Project site were determined by comparing goals and policies as adopted in the California Coastal Act (Coastal Act), the City’s General Plan Open Space and Recreation Element, and the City Department of Parks, Recreation, and Marine Strategic Plan with the proposed Project’s recreational improvements.

4.11.2 Existing Environmental Setting

The Existing Project Site. The Project site is on a City-owned 5.6-acre beach-front parcel, located in Belmont Shore Beach Park in southeast Long Beach. The Project site was the home of the former Belmont Pool. The Belmont Pool was once a state-of-the-art facility that served as an important recreational and competitive venue for the State, City, and region, but it has severely degraded over time. The former indoor pool was closed to the public on January 13, 2013, as a result of substandard seismic and structural conditions and was demolished because of an imminent threat to public safety. The demolition of the structure was conducted under an emergency permit and this Draft EIR does not include analysis of the demolition of the former Belmont Pool structure.

The former Belmont Pool was comprised of an enclosed swimming pool, two outdoor pools (swimming and wading), restaurant, banquet hall, locker room area, and a passive park on the north side of the Project site. The previous pool building had 45,595 square feet (sf) of space and was approximately 60 feet (ft) in height. The three pools provided a total of 18,410 sf of water surface area and featured glass panel walls and sliding doors that could open the indoor pool area to the open air if desired. The northern portion of the Project site contained open space and green space areas totaling 118,790 sf and 45,160 sf, respectively.

Currently, the Project site includes the passive park and the two outdoor pools, which remain open to the public. In order to provide adequate aquatic services during the planning and construction of the proposed Project, the City approved the installation of a temporary outdoor pool. The temporary outdoor pool is located immediately east of the Project site in the western portion of the Beach Parking Lot. The temporary pool was installed and opened on December 19, 2013, and is expected to remain open until the proposed Project would begin operations. The removal of the former Belmont Pool building occurred in February 2015, and only the foundation of the structure remains. A layer of backfilled sand was placed over the site of the former building at the request of the Coastal Commission. The foundation is inaccessible by the public until the proposed Project construction begins.

The visitors can access the Project site via walking, bicycling, public transportation, or car. Vehicular access to the Project site is via Termino Avenue or Ocean Boulevard. Pedestrian access is via the beach or the passive park on the northern portion of the Project site. Parking is available in either the Pier Parking Lot (to the west side of the pool complex) or the Beach Parking Lot (east side of the complex).

Land Uses in the Project Vicinity. The land uses surrounding the site include the following:

- Belmont Shore neighborhood to the northeast; this neighborhood includes predominantly single-family and multifamily residential uses with some retail/restaurant uses.
- Belmont Veterans Memorial Pier, Belmont Beach, Surf Terrace Apartments, Belmont Shores Condominiums, and the Pier Parking Lot to the northwest.
- City of Long Beach maintenance yard, the temporary outdoor pool, and the Beach Parking Lot are located to the east and southeast. The maintenance yard is used for storage of City maintenance vehicles and equipment.
- Pacific Ocean and beaches are to the south.
- Several businesses are located along the northern side of East Olympic Plaza, including Belmont Shores Children's Center, a vacant commercial building, the former Yankee Doodles restaurant, a dog wash, and Chuck's Coffee Shop. The businesses front onto Ocean Boulevard, but some rear entrances open to East Olympic Plaza.

Overview of Existing Recreational Environment. In addition to the aquatic operations at the Project, the City's Department of Parks, Recreation, and Marine own and operate three additional Public Pool facilities:

- **Martin Luther King Jr. Pool** located at 1910 Lemon Avenue. This pool is an indoor year-round facility providing youth and adult recreational open swim, swim lessons, lap swimming, aquatic exercise programs and junior lifeguard training programs.
- **Silverado Park Pool** located at 1540 West 32nd Street. This pool is a year round, indoor 25 - meter pool. This facility provides youth and adult recreational open swim, swim lessons, lap swim, and water exercise classes.
- **Will J. Reid Scout Pool** located at 4747 Daisy Avenue. This pool is a free recreational swimming pool open year-round.

During the summer months, Millikan High School Pool and Jordan High School Pool are utilized to meet public demand for aquatic recreational resources through City/Long Beach Unified School District (LBUSD) joint use agreements. None of these other pools offer Olympic-sized standard competitive swim/dive/water polo facilities. Also, Long Beach City College contains one pool, and California State University at Long Beach has two pools, adding three additional pools that are available for use by the public.¹

4.11.3 Regulatory Setting

State Regulations and Policies.

California Coastal Act. The Recreation Policies contained in Article 3 of the Coastal Act are intended to provide protection for suitable ocean front land to be used for recreational purposes as well as maintaining upland areas to support coastal recreation uses, where feasible. The policies prioritize water-oriented recreational activities and encourage increased recreational boating use of coastal waters by developing support facilities. The policies also place priority on the use of private lands suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation over private residential, general industrial, or general commercial development, but not over agriculture or coastal-dependent industries.

Local Regulations and Policies.

City of Long Beach Open Space and Recreation Element. The Long Beach City Council adopted the most recent Open Space and Recreation Element of the General Plan on October 15, 2002. The Project site is designated Open Space and Parks/Mixed Use in the City's General Plan, and is zoned P-Park and PD-2 (Subarea 1). There are several Goals/Objectives, Policies, and Programs in the Open Space and Recreation Element that are applicable to the proposed Project, as listed below:

- Provide the recreational resources the public wants. (Goals/Objectives 4.4)
- Make all recreation resources environmentally friendly and socially and economically sustainable. (Goals/Objectives 4.5)

¹ City of Long Beach. Pools. Website: <http://www.longbeach.gov/park/recreation/aquatics/pools/default.asp> (accessed January 23, 2015).

- Create additional recreation open space and pursue all appropriate available funding to enhance recreation opportunities. (Open Space and Recreation Element, Policy 4.1)
- Fully maintain public recreation resources. (Goals/Objectives 4.7)
- Provide access to recreation resources for all individuals in the community. (Goals/Objectives 4.11)
- With the help of the community, plan and maintain park facilities at a level acceptable to the constituencies they serve. (Open Space and Recreation Element, Policy 4.6)
- Give special consideration to handicapped and disadvantaged residents in accessing public recreation resources. (Open Space and Recreation Element, Policy 4.13)

City of Long Beach Parks, Recreation, and Marine Strategic Plan. The City Department of Parks, Recreation, and Marine developed a Departmental Strategic Plan in February 2003. The Departmental Strategic Plan assessed recreation needs and objectives citywide. There are several strategies in the Plan that apply to the proposed Project, as listed below:

- Improve access to city parks in Long Beach. (Strategy 1.2)
- Focus on improving the level of safety within City Parks and Recreational Facilities. (Strategy 2.1)
- Focus on improving the condition of Department Parks and Recreational Facilities. (Strategy 2.2)
- Establish lifetime use opportunities. Recreation programs and facilities will be designed to develop and serve a lifetime user through active, passive, and educational experiences. (Strategy 3.1)

4.11.4 Impact Significance Criteria

The thresholds for recreation impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines*. The proposed Project may be deemed to have a significant impact with respect to recreation if it would:

Threshold 4.11.1: Increase demand on the City Department of Parks, Recreation, and Marine’s services and facilities beyond its capacity, thereby accelerating or leading to substantial physical deterioration of existing recreation facilities; or

Threshold 4.11.2: Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

The Initial Study (IS)/NOP (Appendix A) prepared for the proposed Project identified no impacts related to how the Project may increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated (Threshold 4.11.1). The IS/NOP stated that the increased capacity of the Belmont Pool

complex as a result of the proposed Project would not result in increased demand at other parks and recreational resources in the City. The Project would not provide any new housing and would not increase the population in the City. Therefore, the proposed Project would not result in substantial deterioration of other parks or recreation resources, and this topic will not be further analyzed in the Draft EIR

CEQA Baseline. At the time the NOP was issued, the Project site contained both the Belmont Pool facilities and the outdoor temporary pool (opened in December 2013 to provide swimming facilities while the permanent facility was under construction). Although the site contained the former Belmont Pool building at the time of the NOP, the facility was subsequently demolished in February 2015 to alleviate an imminent public safety threat due to the seismically unsafe condition of the building.

The inclusion of the former building in the assessment of recreation impacts is appropriate because the site has been dedicated as the Belmont Pool Plaza since 1962 when the use of Tidelands funds for the construction of the “Belmont Plaza Beach Center” (now Belmont Plaza) project was approved by the voters after the Long Beach City Council placed the item in the municipal election. Specifically, the former pool was in use for recreational and aquatic purposes for approximately 45 years and the temporary pool allows the site to continue its purpose as a local and regional aquatic facility until the permanent replacement facility is constructed. Substantial evidence supports the determination that inclusion of the former pool facility and its operations as the baseline for recreational impacts is appropriate because it is based on recent historical use and is consistent with City’s land use designations for the Project site.

4.11.5 Project Impacts

Threshold 4.11.2: Would the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

Less than Significant Impact with Mitigation Incorporated.

The proposed Project includes the construction and operation of an aquatics facility that would replace the former Belmont Pool facility with a new, modern pool complex. The proposed Project includes indoor and outdoor pool components. Permanent indoor spectator seating would be provided for approximately 1,250 people to view competitive events at the 50-Meter Competition Pool and the Dive Pool. Temporary outdoor seating would be provided for larger events at the Outdoor 50-Meter Competition Pool with a maximum seating capacity of up to 3,000 spectators. The proposed Belmont Pool building would also be designed as a landmark structure blending unique components with a goal to showcase the structure as a state-of-the-art facility for competitive swimming. Conceptual Elevations for the proposed structure are presented in Figures 3.7a and 3.7b. Interior cross-sections of the proposed structure are illustrated in Figures 3.7c and 3.7d.

Project components make up the entire structure and include the following:

- **The Plinth:** This element would be the foundation of the entire structure and would include a raised concrete platform at the pool deck and first floor level that is raised 7 ft above the

surrounding beach and existing site. Below the pool deck level, utility spaces would house the pool equipment, water chambers, chemical storage, and other utilities required to operate the aquatic components.

- **The Bubble:** The Bubble would be a translucent cover to serve as the main arena and would house the indoor pools and permanent indoor bleachers. The structure would be an elliptical shaped dome, comprised of a web of structural steel, infilled with ethylene tetrafluoroethylene (ETFE) plastic, creating a continuous shell over the competition pool. The proposed Bubble structure would have a maximum height of 71 ft above the adjacent grade.
- **Level 1: The Plinth:** The Plinth would be the foundation of the entire structure, consisting of a concrete platform at the pool decks and support functions for the indoor and outdoor pools, including lockers, offices, supply rooms, storage, stairs, and elevators. This level is raised approximately 7 ft above the surrounding beach and existing site based on the anticipated maximum ocean high-water mark to protect the pools, buildings, and structures from a high-water event. Below the pool deck level, utility spaces would house the pool equipment, water chambers, chemical storage, and other utilities required to operate the aquatic components.
- **Level 1 Mezzanine:** The Level 1 Mezzanine would be located adjacent to the outdoor pool deck and would allow for additional outdoor patio space separate from the Plinth level. The Level 1 Mezzanine can be used by visitors and summer swim programs and includes public toilet facilities and mechanical rooms. The exterior patio space would be 6,000 sf.
- **Level 2:** This level is primarily for visitor spectating and includes access to the indoor bleacher seating, concession area, and toilet facilities. This level would be 14,300 sf, which would include the bleacher seating.
- **Level 2 Mezzanine:** Located at the highest publicly accessible level of the facility, the Level 2 Mezzanine includes indoor and outdoor spaces for flexible programming. This level would be 4,850 sf.
- **Café:** This element would consist of a 1,500 sf building, located at the southwest corner of the Project site and is separate from the Plinth component. The Café would be occupied by an independent tenant and would serve Café food and beverages to the visitors of the pool facility, bicyclists, walkers, and beach-goers. A visitor drop-off location in this area would provide a safe and unobtrusive way for both passenger cars and buses to drop off visitors to the pool complex.

A gathering area adjacent to the Café would include bicycle parking and interactive pedestrian features such as sandboxes, outdoor seating, landscaping, and public art opportunities.
- **Public Restrooms:** A public restroom facility would be provided just east of the Café building and would be approximately 600 sf.

The proposed Bubble structure would include an indoor pool configuration that would provide approximately 18,610 sf of water surface area for recreational, instructional, and competitive uses and would comply with the preferred rules standards for all aquatic sports except Olympic long-course swimming. The pool features within the structure would include the following:

- **Indoor 50-Meter Competition Pool.** A competition-sized pool (25 meters wide and 50 meters in length) with a surface area of approximately 13,220 sf would be usable year-round. This pool would feature a moveable floor to allow for floor depth adjustments ranging from 0 ft, 0 inches, to 8 ft, 0 inches deep. Eight 9 ft, 0-inch-wide lanes would be identified with solid black floor

markers for 50-meter swimming. Twenty-one 7 ft, 6-inch-wide lanes would be provided across the pool. Wall targets and floor markers would be provided per the Federation Internationale de Natation (FINA) regulations. Race courses would contain buffer lanes at the outside of the racing lanes measuring at least 1 ft, 0 inches. Rope anchors would be provided in the pool for floating lane lines. Two 6 ft wide movable bulkheads would also be provided to divide the pool.

- **Indoor Teaching Pool.** The indoor teaching pool would consist of approximately 820 sf and would vary from a minimum depth of 3–6 ft to a maximum depth of 5 ft and include a large staircase into the pool.
- **Indoor Spa Pool.** The indoor spa pool would be approximately 250 sf and 3 ft deep. The spa would be made of concrete and feature a ceramic tile interior with hydrotherapy jets.
- **Dive Pool.** The indoor dive pool would be approximately 4,205 sf and would range from 16 to 17 ft deep. This pool would feature a dive tower with platforms at 1, 3, 5, 7.5, and 10 meters. Two 3-meter springboards and two 1-meter springboards would be provided on the platform side of the pool. The 10 meter platform is 10 ft wide which supports synchronized diving.
- **Dive Spa Pool.** The indoor dive spa pool would be located adjacent to the Dive Pool and would be approximately 115 sf and 3 ft deep.

The indoor component would also include the following support facilities: men's and women's locker rooms and restroom facilities, storage for equipment and furnishings, spaces for mechanical systems, a lobby/reception area, and staff administrative areas for full-time and temporary staff.

The proposed outdoor pool component would include two separate pools with an approximate total of 17,840 sf of water surface. The outdoor pools are proposed to be located directly adjacent to the indoor pools for utilization of common support facilities in the pool building. The pool features in this component would include the following:

- **Outdoor 50-Meter Competition Pool.** The outdoor competition pool would have a surface area of approximately 14,120 sf, with a minimum depth of 8 ft, 6 inches, and a maximum depth of 10 ft. The Outdoor Competition Pool would have ten 8 ft, 0-inch-wide lanes marked with solid black floor markers for 50-meter swimming, meeting all preferred rules standards for swimming, water polo, and synchronized swimming. Twenty-one 7 ft, 6-inch-wide lanes would be provided across the pool. Wall targets and floor markers would be provided per FINA regulations. Race courses would contain buffer lanes at the outside of the racing lane measuring at least 1 ft, 0 inches. The outdoor competition pool would comply with the preferred rules standards for swimming, water polo, and synchronized swimming. One 6 ft wide movable bulkhead would be provided to divide the pool.
- **Outdoor Recreation Pool.** The outdoor recreation pool would be approximately 3,720 sf with a maximum depth of 4 ft.

The proposed pool facility would provide opportunities for public swimming, as well as training venues for swimming, diving and aquatic sports training, and competitive meets. These activities are very similar to the activities that have occurred over the past 45 years in the former pool complex.

The Proposed project includes approximately 36,450 sf of pool surface area, thereby increasing the surface water area of the 18,410 sf former Belmont Pool by 18,040 sf, which would allow for recreational and competitive activities to occur simultaneously, if necessary. The availability for

simultaneous operations is proposed in an attempt to resolve scheduling conflicts that occurred at the former Belmont Pool facility. The intensity of each individual event would not change, but a larger number of teams would be able to compete more often. The new facility is designed to enable public use during competition to allow for simultaneous pool usage at previously conflicted times of day.

The proposed Project would not alter or impede access to the beaches, and would not increase the population or use of off-site recreational facilities. Because the proposed Project is a recreational facility intended to provide a public recreation benefit, it would not substantially affect any of the existing off-site, adjacent recreational uses or activities such as the surrounding beach area, dog park, and associated pedestrian and bicycle paths surrounding the Project site. These Project components would improve the physical condition of the existing recreational facility. In addition, the proposed Project would increase the value of this recreational resource by making the facility better suited to meet existing aquatic needs and future trends.

Construction (Short-Term) Impacts on Recreational Facilities. The former pool facilities were closed, and were demolished due to seismic safety concerns. Construction activities, including clearing and grading of the remainder of the Project site, construction staging in the adjacent Beach Parking Lot, and construction of the proposed Project facilities would occur in close proximity to the temporary pool. However, it is anticipated that the temporary pool would remain open until completion of the new indoor pool complex in order to accommodate the ongoing pool activities.

The entire Project site would be screened with construction fencing and would be off-limits for the duration of construction. Construction of the proposed Project is anticipated to commence in 2017 and be completed within approximately 18 months, subject to available funding. The primary staging area for construction would be in the eastern portion of the Beach Parking Lot (see Figure 3.5, Section 3.0, Project Description). However, a majority of the public parking would remain available during construction. Also, transit service would remain operational during the construction phase.

Beach and Pier access is available to pedestrian/bicycle traffic via Shoreline Beach Bike Path from the west, at 39th Place and East Midway Street. Pedestrian/bicycle and vehicle access is available east of the Project site from Granada Avenue where the east end of the Beach Lot would remain available for public access.

Although access to the Belmont Veteran's Memorial Pier, parking lots, beach areas, and the pedestrian/bicycle path may be subject to disruption during the construction of the proposed Project, Mitigation Measure 4.12.2 (see Section 4.12, Traffic and Circulation) requires that a Construction Traffic Management Plan be implemented to ensure that construction activities do not prevent access to the Belmont Veteran's Memorial Pier, beach access, and nearby pedestrian/bicycle path facilities in the Project vicinity. With implementation of the Construction Traffic Management Plan, construction activities are expected to have less than significant impacts on access to the surrounding off-site recreational facilities.

Therefore, even though construction staging would occur in the Beach Parking Lot, access to recreational activities would not be significantly adversely impacted during the construction phases of the Project because access to recreational uses in the surrounding areas would remain available. With implementation of Mitigation Measure 4.12.2, short-term construction-related impacts on recreational resources would be less than significant.

Operational (Long-Term) Impacts on Recreational Facilities. The proposed Project would result in construction of new recreation facilities on the site to replace the previous pool facilities. The primary goal of the proposed Project is to develop a state-of-the-art aquatic facility to serve as an important recreational and competitive venue for the City, region, and State. The proposed Project would replace the previous facility with a more modern pool complex that better meets the needs of recreational and competitive swimmers, divers, and recreational pool users.

The proposed Project would redesign the existing passive park and open space areas to be situated along the western and northern portions of the Project site (refer to Figure 3.9). The current passive park and open space areas occupy approximately 118,790 sf and 45,160 sf of the site but would increase to approximately 127,085 sf and 55,745 sf, respectively, as a result of the proposed Project. The passive park and open space areas would be intended for general park uses, similar to the uses at the existing passive park. The passive park and open space areas would also provide for linkages from the beach to East Olympic Plaza area and other surrounding pathways, including the rerouted bicycle and pedestrian path. The modifications to the passive park and open space areas would adapt to the proposed Belmont Pool facilities while maintaining the site's open space and recreational benefits. Therefore, no long-term significant recreational impacts related to the operation of the proposed Project are anticipated, and no mitigation is required.

California Coastal Act Policies. Several provisions of the Coastal Act pertain to recreational facilities in the Coastal Zone. As discussed in Section 4.9, Land Use, the proposed Project must be approved as part of a Coastal Development Permit (CDP) issued by the Coastal Commission prior to Project construction. An application for a CDP will be submitted following certification of the EIR and approval of the proposed Project by the City. Each applicable Coastal Act policy, and its consistency with the proposed Project, is outlined in Table 4.9.A in Section 4.9, Land Use. As stated in the analysis for the Project's consistency with Coastal Act recreational policies in Section 4.9 of this Draft EIR, renovation of the pool complex shows a commitment by the City to the long-term use of this area as an aquatics recreational facility. A brief discussion is included here as it relates specifically to recreational policies.

Coastal Act Article 1 contains general policies and is not applicable to a recreation discussion. Similarly, Article 4 (Marine Resources), Article 5 (Land Resources), Article 6 (Development), and Article 7 (Industrial Development) are not applicable to the recreational component of the proposed Project.

The following sections of the Coastal Act pertain to recreational facilities and are applicable to the proposed Project:

Coastal Act Article 2, Public Access

- In carrying out the requirement of Section 4 of Article 2 of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs, and the need to protect public rights, rights of private property owners, and natural resource areas from overuse. (Coastal Act Section 30210)
- Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be distributed throughout an area so as to mitigate against the impacts, social and otherwise, of overcrowding or overuse by the public of any single area. (Coastal Act Section 30212.5)

- Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred. (Coastal Act Section 30213)

The remaining policies contained in Article 2 address new development, distribution of development, and implementation of public access policies, and are not applicable to the discussion of the proposed Project's potential recreational impacts.

Coastal Act Article 3, Recreation

- Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area. (Coastal Act Section 30221)

The remaining policies contained in Article 3 address new development, coastal aquaculture, and upland areas, and are not applicable to the discussion of the proposed Project's potential recreational impacts.

As discussed in detail in Section 4.9, Land Use, the proposed Project is consistent with the above Coastal Act sections regarding recreation resources. The proposed Project elements that further ensure compatibility with Coastal Act policies include the following:

- The proposed Project provides for enhanced public access through replacement of the previous facilities including compliance with current California Building Code (CBC). The proposed Project includes new facilities with up-to-date seismic and structural components improving public safety. (Coastal Act Section 30224)
- The proposed Project would enhance the existing water-oriented recreational activities of the Belmont Olympic Plaza. The proposed Project, which is adjacent to the ocean and ocean-front land, would enhance the existing recreational uses of the beach and pool facilities located there. (Coastal Act Section 30224)
- The proposed Project would accommodate changes in the needs of swimmers, divers, and other pool users while maintaining the recreational benefits of the existing bicycle and pedestrian path by rerouting it to a redesigned East Olympic Plaza, which would include bicycle and pedestrian enhancements. The proposed Project facilities would provide increased recreational opportunities because the renovated facilities would facilitate continued public use within the Coastal Zone. (Coastal Act Sections 30221 and 30224)

As indicated above, the policies within Chapter 3 of the Coastal Act are intended to provide protection for suitable ocean-front lands to be used for water-oriented and recreational purposes. As described above, the proposed Project is consistent with the intent of these policies. The proposed Project consists of the improvement of beachfront recreational and visitor-serving facilities. Therefore, based on the above discussion, the proposed Project would be consistent with Coastal Act policies, and impacts are considered less than significant. No mitigation measures are required.

City of Long Beach General Plan, Open Space and Recreation Element. As listed previously in Section 4.9.3, there are several Goals/Objectives, Policies, and Programs in the Open Space and Recreation Element that are applicable to the proposed Project. The proposed Project is consistent with the Element's objectives and policies because the Project would enhance the existing recreation and open space uses within the Project site. Specifically, the proposed Project would replace the previous pool/recreational facilities in order to continue meeting the recreational needs of existing and future residents. The proposed Project is consistent with making recreational resources "environmentally friendly" and sustainable because the proposed Project would meet Gold Leadership in Energy and Environmental Design (LEED) certification standards. Furthermore, the proposed Project would not substantially change visual access to the coast because it includes replacement of a former facility in the approximate same location. The proposed Project is consistent with the Open Space and Recreation Element goal to maintain public resources because it involves the replacement and revitalization of a key City recreational resource. The proposed pool complex would be built to current Americans with Disabilities Act (ADA) standards, and would continue to be available to the public at a nominal cost and, therefore, would be accessible and available to all members of the public.

As detailed above, the proposed Project does not conflict with the City's Open Space and Recreation Element. Therefore, no adverse impacts would result, and no mitigation measures are required.

The City Department of Parks, Recreation, and Marine Strategic Plan. As listed previously in Section 4.9.3, there are several strategies in the Plan that are applicable to the proposed Project. The proposed Project is consistent with the Plan's strategies because the proposed Project would ensure continuance of the previous recreation uses within the Project site. The proposed Project includes replacement of the former Belmont Pool with a new state-of-the-art aquatics facility and would not disrupt any existing recreational facility or recreational activities currently available in the vicinity of the Project site. The proposed Project would redesign the existing passive park to maintain the same park uses, and it would reroute the bicycle and pedestrian path to East Olympic Plaza that would include bicycle and pedestrian enhancements. The proposed Project would construct a modern pool complex and supporting infrastructure to improve the level of safety and access at the facility, and would ensure the continued operation of a pool facility on the site, pursuant to the needs of the aquatics community. Therefore, the proposed Project is consistent with the City's Department of Parks, Recreation, and Marine Strategic Plan Strategies listed above, and impacts are considered less than significant. No mitigation measures are required.

4.11.6 Cumulative Impacts

As defined in the *State CEQA Guidelines*, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for recreational facilities. The Project site was previously developed as a community pool and would be replaced with similar recreational uses. The proposed Project would be consistent with the City's General Plan policies and with Coastal Commission policies. In addition, the proposed Project would expand the former pool amenities and integrate the existing public open space areas into the site design. As the replacement of a recreational facility, the proposed Project, in conjunction with the cumulative projects in the City, would contribute to the recreational opportunities in the City. The proposed Project is not anticipated to significantly increase

the use or need for additional City park facilities. Compliance with City and Coastal Commission policies and an increase in public amenities demonstrates the proposed Project would have no potential cumulatively considerable impacts on such resources.

In addition, the proposed Project does not include any residential housing or a substantial increase in long-term employment opportunities that would increase the population in the City. Therefore, the proposed Project would not, with any other planned or proposed projects, cumulatively contribute to the increased use of or need for additional or expanded recreational facilities in the City. Based on these factors, the proposed Project would not contribute to adverse cumulative impacts related to recreation when combined with other foreseeable projects that are planned or expected to occur in Long Beach or the region. Implementation of the proposed Project is, therefore, considered to have less than cumulatively significant impacts related to recreational resources.

4.11.7 Level of Significance Prior to Mitigation

The proposed Project would not result in any significant impacts related to the increased use of existing recreational facilities that would either result in substantial physical deterioration of the facility or have a significant adverse physical effect on the environment.

4.11.8 Mitigation Measures

With implementation of Mitigation Measure 4.12.2, in Section 4.12, Transportation and Traffic, as identified in the Transportation and Traffic section, short-term construction-related impacts on recreational resources would be less than significant.

4.11.9 Level of Significance after Mitigation

Implementation of Mitigation Measure 4.12.2, as identified in Section 4.12, Transportation and Traffic, would ensure that short-term construction-related impacts on recreational resources would be less than significant. There are no significant unavoidable adverse impacts of the proposed Project related to recreational resources.

4.12 TRANSPORTATION AND TRAFFIC

This section analyzes the existing and planned transportation and circulation conditions for the Belmont Pool Revitalization Project (proposed Project) and the surrounding area, and identifies circulation impacts that may result during, or subsequent to, the development of the proposed Project. Also addressed are the potential traffic impacts of the operation of the proposed pool complex compared to the pre-closure operations of the existing Belmont Pool. The analysis contained in this section is based on the traffic modeling and calculation performed for the proposed Project presented in Appendix H.

Scoping Process

The City of Long Beach (City) distributed the first Notice of Preparation (NOP) for the Environmental Impact Report (EIR) for public review between April 18 and May 17, 2013. The City received three comment letters in response to the original NOP. No comment letters associated with Traffic and Transportation were received in response to the original NOP circulated for the proposed Project. Due to revisions in the Project Description, the City re-issued and circulated the NOP for public review between April 9, 2014, and May 8, 2014. The City received five comment letters in response to the re-issued NOP during the public review period. A comment letter from the Los Angeles County Metropolitan Transportation Authority (Metro) provided recommendations on the geographic area to be included in the Traffic Impact Analysis. Additionally, Metro provided recommended guidelines and guidance policies to be followed during the preparation of the *Traffic Impact Analysis* for the proposed Project to ensure compliance with the 2010 Congestion Management Program (CMP) for the County of Los Angeles (County). None of the arterial monitoring stations identified in Appendix A of the 2010 CMP for the County are located near the proposed Project, and the Project is not anticipated to conflict with standards established for designated roads or highways.

4.12.1 Methodology

The impacts of the added vehicle trips generated by the proposed Project were evaluated in comparison to the existing traffic conditions. The study area intersection level of service (LOS) analysis was conducted for the weekday a.m. peak hour, the weekday p.m. peak hour, and the Saturday midday peak hour. The study area was based on the vehicular parking routes for the Belmont Pool and includes the following 10 intersections that were analyzed for the report:

1. Redondo Avenue/Ocean Boulevard
2. Loma Avenue/Ocean Boulevard
3. Ocean Boulevard/Livingston Drive
4. Termino Avenue/Livingston Drive
5. Bennett Avenue/Livingston Drive (stop-controlled intersection)
6. Ximeno Avenue/Livingston Drive
7. 2nd Street/Livingston Drive

8. Termino Avenue/Ocean Boulevard
9. Bennett Avenue/Ocean Boulevard (stop-controlled intersection)
10. Granada Avenue/Ocean Boulevard (stop-controlled intersection)

Intersection Measures of Effectiveness. *Traffix* (Version 8.0 R1) computer software was utilized to determine the study area intersection LOS based on the Intersection Capacity Utilization (ICU) methodology for the signalized study area intersections and the Highway Capacity Manual (HCM) methodology for unsignalized intersections. Consistent with the City’s requirements, the ICU methodology compares the volume-to-capacity (v/c) ratios of conflicting turn movements at an intersection, sums up these critical conflicting v/c ratios for each intersection approach, and determines the overall ICU. The resulting ICU is expressed in terms of LOS, where LOS A represents free-flow activity, and LOS F represents overcapacity operation. LOS is a qualitative assessment of the quantitative effects of such factors as traffic volume, roadway geometrics, speed, delay, and maneuverability on roadway and intersection operations. Typical intersection operations by LOS grade are described below in Table 4.12.A.

Table 4.12.A: LOS Descriptions

LOS	Description
A	No approach phase is fully utilized by traffic, and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized, and a substantial number are nearing full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally, drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.
D	This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is attained no matter how great the demand.
F	This level describes forced-flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially, and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, speed can drop to zero.

LOS = level of service

The relationship between LOS and the ICU value (i.e., v/c ratio) is shown in Table 4.12.B:

Table 4.12.B: LOS/ICU Value Comparison

Level of Service	Volume-to-Capacity (ICU Methodology)	Level of Service	Volume-to-Capacity (ICU Methodology)
A	≤0.60	D	>0.80 and ≤0.90
B	>0.60 and ≤0.70	E	>0.90 and ≤1.00
C	>0.70 and ≤0.80	F	>1.00

ICU = intersection capacity utilization
LOS = level of service

For the HCM methodology, the LOS is presented in terms of total intersection delay (in seconds per vehicle). The relationship between LOS and the delay at unsignalized intersections is shown in Table 4.12.C.

Table 4.12.C: LOS/Unsignalized Intersection Delay Comparison

LOS	Unsignalized Intersection Delay (seconds) per Vehicle
A	≤ 10.0
B	>10.0 and ≤ 15.0
C	>15.0 and ≤ 25.0
D	>25.0 and ≤ 35.0
E	>35.0 and ≤ 50.0
F	>50.0

LOS = level of service

The City considers LOS D as the upper limit of satisfactory operations for total intersection operation. Mitigation is required for any signalized intersection where a project’s traffic causes the intersection to deteriorate from LOS D to LOS E or F, or if the Project traffic causes an increase in v/c ratio of 0.02 or greater when the intersection is operating at LOS E or F in the baseline condition. Mitigation is required for any unsignalized intersection where a project’s traffic increases the intersection delay by 2 percent or greater when the entire intersection is operating at LOS E or F in the baseline condition.

4.12.2 Existing Environmental Setting

Existing Circulation System. The Belmont Pool Plaza is located in the Belmont neighborhood in the southeastern portion of the City of Long Beach. The former Belmont Pool building was located near the intersection of Ocean Boulevard and Livingston Drive. A temporary outdoor pool (opened in December 2013 to provide swimming facilities while the permanent facility was under construction) is located in the Beach Parking Lot. Access to parking for the Belmont Pool is provided from Ocean Boulevard via Termino Avenue and Bennett Avenue. Public transportation in the vicinity of the Project is provided by Long Beach Transit. Long Beach Transit Routes 121 and 131 stop near the intersection of Termino Avenue/Ocean Boulevard. The Shoreline Beach Bike Path provides a Class I off-street bike path from the Los Angeles River to 54th Place and provides access to the Belmont Pool

for bicycles. The location of the Project site is illustrated on Figure 3.1 (see Chapter 3.0, Project Description).

Existing Level of Service with Outdoor Pool. Traffic volumes were collected in February 2016 and analyzed to determine the existing LOS at the 10 study area intersections during the weekday a.m. peak hour, the weekday p.m. peak hour, and the weekend midday peak hour. The existing LOS is listed on Table 4.12.D, below. In addition, worksheets providing LOS calculations are provided in Appendix H.

Table 4.12.D: Existing Intersection Level of Service

Intersection	AM Peak Hour		PM Peak Hour		Weekend Midday Peak Hour	
	ICU/Delay	LOS	ICU/Delay	LOS	ICU/Delay	LOS
1. Redondo Avenue/Ocean Boulevard	0.70	B	0.72	C	0.59	A
2. Loma Avenue/Ocean Boulevard	0.61	B	0.65	B	0.46	A
3. Ocean Boulevard/Livingston Drive	0.49	A	0.58	A	0.45	A
4. Termino Avenue/Livingston Drive	0.40	A	0.63	B	0.47	A
5. Bennett Avenue/Livingston Drive	8.4 sec	A	8.4 sec	A	8.4 sec	A
6. Ximeno Avenue/Livingston Drive	0.14	A	0.19	A	0.17	A
7. 2nd Street/Livingston Drive	0.69	B	0.62	B	0.65	B
8. Termino Avenue/Ocean Boulevard	0.30	A	0.40	A	0.34	A
9. Bennett Avenue/Ocean Boulevard	9.6 seconds	A	11.2 seconds	B	10.8 seconds	B
10. Granada Avenue/Ocean Boulevard	8.6 seconds	A	9.6 seconds	A	9.5 seconds	B

ICU – Intersection Capacity Utilization
 LOS – Level of Service

Level of Service Based on Historical Operations. At the time intersection traffic volumes were collected, the temporary outdoor pool at Belmont Pool Plaza was open for use by clubs, local high schools, and the general public. However, because of the smaller size of the outdoor pool compared to the indoor pool, it is not believed that the traffic volumes collected reflect historic typical conditions during operation of the entire Belmont Pool facility. In order to determine traffic conditions during typical operation of the entire Belmont Pool facility, historic data for the operation of the pool was examined.

Belmont Pool was open year-round but use can vary by season and temperature. In examining pool operations to determine historic typical trip generation, typical but busy conditions were analyzed. Special events were not considered as they do not occur on a typical day. Information regarding Belmont Pool’s past operation was available from records of the City of Long Beach Parks and Recreation Department and interviews with Lori Jamacz who works for the City of Long Beach Parks, Recreation, and Marine Department at Belmont Pool.

Belmont Pool was used by local high school swimming and water polo teams, swimming, diving, and water polo clubs, and the general public including recreational swimming, lap swimming for fitness, and swim lessons. These uses were programmed throughout the day and not all resulted in trips to or from Belmont Pool in the typical commute peak hours. For example, clubs using the pool for swimming, diving, and water polo arrived before the start of the p.m. peak hour and left after the end of the p.m. peak hour.

Open swim for recreation and fitness of the general public began at 5:30 a.m. The typical stay at the pool complex for lap swimmers was 1 to 1.5 hours including time before and after their swim. During the peak hour between 7:00 a.m. and 9:00 a.m., it is estimated that 50 patrons arrived at and 100 patrons departed from the pool. Many of the patrons of Belmont Pool swimming for fitness arrived by bicycle. However, to present a worst-case scenario, each patron was analyzed as traveling in a single-occupant vehicle.

High school swimming and water polo teams arrived at Belmont Pool for practice after school and before the start of the p.m. peak hour, but departed during the p.m. peak hour. The pool has historically reopened to open swim for recreation and fitness of the general public at 4:00 p.m. During the peak hour between 4:00 p.m. and 6:00 p.m., it is estimated that 100 patrons arrived at and 65 patrons departed from the pool. To present a worst-case scenario, each patron was analyzed as traveling in a single-occupant vehicle.

On weekends, Belmont Pool was open for recreation and fitness of the general public during the midday peak hour. During the peak hour between 12:00 p.m. and 2:00 p.m. it is estimated that up to 300 patrons could have arrived at and 150 patrons could have departed from the pool. Families arriving for recreational swimming typically travel in one car. Patrons swimming laps for fitness could have arrived at the pool by bicycle on weekends. Again, to present a worst-case scenario, each patron was analyzed as traveling in a single-occupant vehicle. The resulting historic trip generation is displayed in Table 4.12.E.

Table 4.12.E: Belmont Pool Project Trip Generation

	AM Peak Hour			PM Peak Hour			Weekend Midday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total
Existing Belmont Pool	50	100	150	100	65	165	300	150	450

4.12.3 Regulatory Setting

Federal Regulations. There are no relevant federal traffic and circulation regulations applicable to the proposed Project.

State and Regional Policies and Regulations.

Congestion Management Program. In Los Angeles County, the CMP uses ICU intersection analysis methodology to analyze its operations. In June 1990, the passage of the Proposition 111 gas tax increase required urbanized areas in the State with a population of 50,000 or more to adopt a CMP. The Los Angeles County Metropolitan Transportation Authority (Metro) is the Congestion Management Agency (CMA) for the County. Metro has been charged with the development, monitoring, and biennial updating of Los Angeles County’s CMP. The Los Angeles County CMP is intended to address the impact of local growth on the regional transportation system. The CMP Highway System includes specific roadways, State highways, and CMP arterial monitoring locations/intersections. The CMP is also the vehicle for proposing transportation projects that are eligible to compete for the State gas tax funds.

Local Policies and Regulations.

City of Long Beach General Plan. An update to the City of Long Beach General Plan is currently underway. Traffic and circulation goals and policies are included in the Mobility Element of the City General Plan (2013). It is the stated goal of the City of Long Beach to create an efficient, balanced, multimodal mobility network. This goal is supported by the objectives to: (1) reconfigure streets to emphasize modal priorities, (2) strategically improve congested intersections and corridors, and (3) establish a more flexible level of service approach to traffic analysis and improvements.

4.12.4 Impact Significance Criteria

Criteria for determining the significance of impacts to transportation and circulation are based on the *State CEQA Guidelines*. Project-related traffic impacts may be considered potentially significant and adverse if the proposed Project would:

- Threshold 4.12.1:** Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;
- Threshold 4.12.2:** Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;
- Threshold 4.12.3:** Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
- Threshold 4.12.4:** Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Threshold 4.12.5:** Result in inadequate emergency access; or
- Threshold 4.12.6:** Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The City prepared an Initial Study/Notice of Preparation (IS/NOP) in April 2014 (Appendix A). The IS/NOP addressed the potential for a change in air traffic patterns (Threshold 4.12.3) and the potential to increase hazards due to a design feature (Threshold 4.12.4), and noted that these topics did not warrant further analysis in the EIR. The proposed Project is located approximately 3 miles southeast of Long Beach Municipal Airport, and the heights of the pool building, light standards, and other project features on the site would not be sufficient to require modifications to the existing air traffic patterns at the airport and, therefore, would not affect aviation traffic levels or otherwise result in substantial aviation-related safety risks. Furthermore, the proposed Project is the replacement of an

existing facility in an urbanized coastal area, and does not include any design features that would create or increase hazard. These topics will not be further addressed in this EIR.

California Environmental Quality Act (CEQA) Baseline. At the time the NOP was issued, the Project site contained both the Belmont Pool facilities and the outdoor temporary pool (opened in December 2013 to provide swimming facilities while the permanent facility was under construction). Although the site contained the former Belmont Pool building at the time of the NOP, the facility was subsequently demolished in February 2015 to alleviate an imminent public safety threat due to the seismically unsafe condition of the building.

The inclusion of the former pool building in the assessment of traffic impacts is appropriate because the former facility was present on the site for approximately 45 years and represents the historic uses of the site, and the historic traffic conditions for the site. The substantial evidence of recent historical uses support the determination that the Belmont Pool building as the baseline for traffic impacts is appropriate.

4.12.5 Project Impacts and Mitigation Measures

Threshold 4.12.1: **Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

Less than Significant Impact with Mitigation Incorporated.

Construction Traffic. Construction of the proposed Project would require a net export of approximately 1,500 cubic yards (cy) of material, and construction worker commutes for the duration of the construction period. The staging area for construction would be in the Beach Parking Lot. Construction of the proposed Project is anticipated to commence in 2017 at the earliest and be completed within approximately 18 months.

Trips generated by construction traffic in the a.m. and p.m. peak hours could include construction workers arriving at the site, equipment and material delivery, and material export during the demolition phase. Large trucks, used for the delivery and removal of equipment and materials, utilize more roadway capacity than passenger vehicles due to their larger size, slower start-up times, and reduced maneuverability. In order to account for the increase in roadway capacity utilized by construction vehicles, passenger car equivalent (PCE) factors are used. These factors were applied to the vehicle trip generation to account for the difference in operational characteristics of heavy vehicles. In total, however, construction traffic is not anticipated to exceed the 100 inbound and 200 outbound trips already analyzed in the a.m. peak hour or the 200 inbound and 130 outbound trips already analyzed in the p.m. peak hour that would be expected with operation of the completed pool facility. Therefore, similar to operation of the completed

pool facility, intersection operation is expected to remain at acceptable LOS during construction. Therefore, the proposed Project would not result in a significant impact related to construction traffic, and no mitigation is required.

Operational Traffic. The proposed Belmont Pool Project involves the construction of a new state-of-the-art pool facility. When compared to the former Belmont Pool, the proposed Project water surface area would be increased from 18,410 square feet (sf) to 36,450 sf. The proposed Project also includes a standalone 1,500 sf café. As a result of the proposed Project, multiple user groups could be programmed concurrently throughout the day. In addition, one of the pools could remain open to the general public while a special event is being held. However, because events are scheduled throughout the day, increased concurrent programming would not necessarily affect traffic during the peak hours.

A full-size indoor pool and a full-size outdoor pool could serve twice as many users as currently patronize the pool in the a.m. peak hour, the p.m. peak hour, and the weekend midday peak hour. To analyze this scenario, the operational traffic discussed above was doubled. Travel to Belmont Pool is possible by public transit, bicycle, and carpool but each patron was analyzed as traveling by single-occupant vehicle to present a conservative (“worst-case”) scenario. The resulting trip generation is displayed in Table 4.12.F.

Table 4.12.F: Future with Project Trip Generation

	AM Peak Hour			PM Peak Hour			Weekend Midday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total
Proposed Project	100	200	300	200	130	330	600	300	900

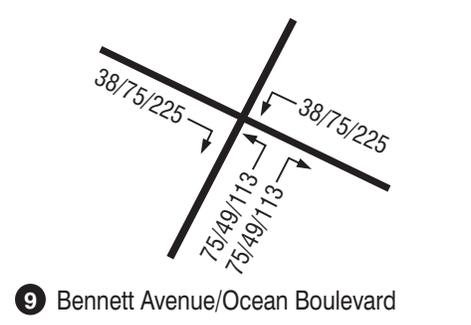
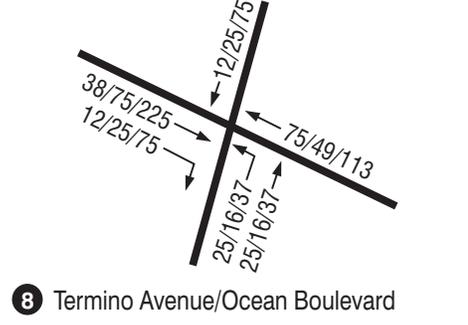
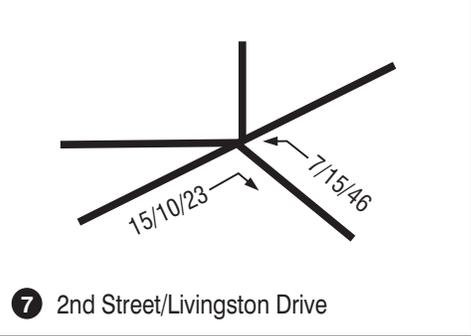
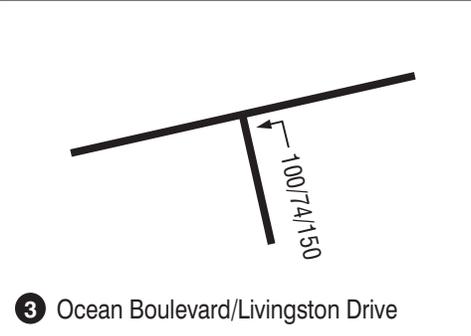
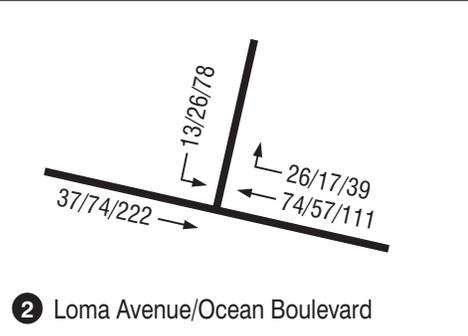
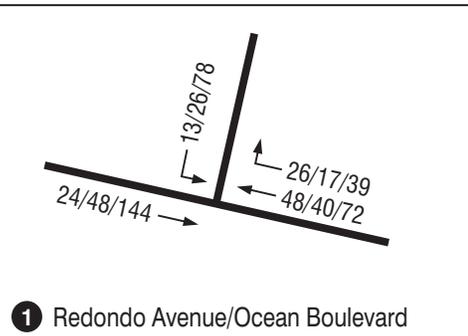
Parking for Belmont Pool is located in a metered parking lot accessible from Bennett Avenue. Patrons of the pool might also have parked in the lot for Belmont Pier at the end of Termino Avenue, which is a pay-and-display lot. Given the various utility of the two roadways providing access to Belmont Pool, 75 percent of traffic to and from the pool was assigned to Bennett Avenue while the remaining 25 percent was assigned to Termino Avenue. Regionally, trips were distributed based on the location of residential land uses likely to generate travel demand to the pool during the peak hours analyzed.

Figure 4.12.1 illustrates the trip distribution and subsequent project trip assignment at the 10 study intersections. The results of these traffic numbers added to the study area intersections are presented in Table 4.12.G. Worksheets providing LOS calculations are provided in Appendix H.

LEGEND

XX/YY/ZZ - AM Peak Hour/PM Peak Hour/
Saturday Midday Volumes

X - Trip Distribution Percent



LSA



FIGURE 4.12.1

SCHEMATIC - NOT TO SCALE

Belmont Pool Revitalization Project
Trip Distribution and Assignment

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Table 4.12.G: Future with Project Intersection Level of Service

Intersection	AM Peak Hour		PM Peak Hour		Weekend Midday Peak Hour	
	ICU/Delay	LOS	ICU/Delay	LOS	ICU/Delay	LOS
1. Redondo Avenue/Ocean Boulevard	0.73	C	0.75	C	0.68	B
2. Loma Avenue/Ocean Boulevard	0.65	B	0.69	B	0.56	A
3. Ocean Boulevard/Livingston Drive	0.52	A	0.61	B	0.50	A
4. Termino Avenue/Livingston Drive	0.41	A	0.65	B	0.52	A
5. Bennett Avenue/Livingston Drive	8.4 sec	A	8.4 sec	A	8.4 sec	A
6. Ximeno Avenue/Livingston Drive	0.15	A	0.19	A	0.17	A
7. 2nd Street/Livingston Drive	0.69	B	0.62	B	0.66	B
8. Termino Avenue/Ocean Boulevard	0.34	A	0.44	A	0.48	A
9. Bennett Avenue/Ocean Boulevard	10.7 seconds	A	12.3 seconds	B	16.4 seconds	C
10. Granada Avenue/Ocean Boulevard	8.8 seconds	A	10.1 seconds	A	11.0 seconds	B

ICU – Intersection Capacity Utilization
LOS – Level of Service

As Table 4.12.G shows, all study area intersections are anticipated to operate at LOS C or better in the future with new traffic generated by an opportunity to program more overlapping uses of Belmont Pool as a result of the proposed Project. All study area intersections would operate at an LOS that is considered acceptable by the City of Long Beach (LOS D or better). Therefore, the proposed Project is not anticipated to conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. Because the proposed Project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system it would have a less than significant impact relative to this threshold, and no mitigation is required.

Special Event Traffic. Typical daily operation of the new Belmont Pool with up to 900 patrons in a peak hour is not anticipated to result in a significant traffic impact to the study area intersections. This includes typical daily use by local high school swimming and water polo teams for training; swimming, diving, and water polo clubs; and the general public, including recreational swimming, lap swimming for fitness, and swim lessons. Several times per year, Belmont Pool facilitates special events such as high school and collegiate swimming and water polo competitions. The previous facility provided 2,500 seats for spectators at events such as these at the indoor pool. As described further in Chapter 3.0, Project Description, of this Draft EIR, the proposed Project would provide 1,250 permanent seats for the indoor pool, and up to 3,000 temporary seats for the outdoor pool. No permanent outdoor spectator seating is included in the proposed Project. Unless special events are held at both the indoor and outdoor pools

simultaneously, the total number of spectators for the proposed Project is expected to be similar to the baseline conditions of the former pool facility.

The Belmont Pool hosted the United States (U.S.) Olympic Swim trials in 1968 and 1976 and the National Collegiate Athletic Association (NCAA) championships in 1974 and 1978. If special events such as these again occur at the Belmont Pool after the proposed Project is constructed, they are not expected to occur regularly. In the event that a large special event is held at Belmont Pool, an Event Traffic Management Plan would need to be developed that addresses potential impacts to traffic circulation and the steps necessary to avoid potential significant traffic congestion and parking impacts. With typical average vehicle occupancy of 1.5 passengers per vehicle, an event with 450 spectators would be expected to generate 300 outbound trips, which is the traffic volume that was analyzed in the weekend midday peak hour. Therefore, any event with more than 450 spectators would be considered a large special event that would require an Event Traffic Management Plan. This plan may include active traffic management and/or off-site parking and shuttles. Because special events are sporadic and would occur at specific times per year consistent with existing (pre-closure) conditions, the impacts of special event traffic would not cause significant peak-hour LOS impacts. Mitigation Measure 4.12.1 requires the City to prepare and implement an Event Traffic Management Plan that requires traffic and control measures for special events to be reviewed and approved by the City of Long Beach Traffic Engineer. Implementation of Mitigation Measure 4.12.1 would reduce construction traffic impacts to the surrounding residences and businesses to less than significant levels.

Threshold 4.12.2: Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Less than Significant Impact. None of the arterial monitoring stations identified in Appendix A of the 2010 CMP for the County are located near the proposed Project, and the Project is not anticipated to conflict with standards established for designated roads or highways. The proposed Project would have a less than significant impact relative to the adopted CMP and no mitigation is required.

Threshold 4.12.5: Would the project result in inadequate emergency access?

Less than Significant Impact with Mitigation Incorporated.

Construction. Potential temporary lane closures could restrict access for emergency vehicles. Mitigation Measure 4.12.2 requires that a Construction Traffic Management Plan be prepared for the proposed Project, which would ensure that emergency vehicles would be able to navigate through streets adjacent to the Project site that may experience congestion due to construction activities. A Construction Traffic Management Plan that identifies traffic control for any potential street closures, detours, or other disruption to traffic circulation and public transit routes is necessary for the proposed Project. A Construction Traffic Management Plan also identifies the routes that construction vehicles are authorized to use to access the site, the hours of construction traffic, traffic controls and detours, and staging areas for equipment. Mitigation Measure 4.12.2

also requires that all emergency access to the Project site and adjacent areas be kept clear and unobstructed during all phases of construction. Traffic management personnel (flag persons), required as part of the Construction Traffic Management Plan, would be trained to assist in emergency response by restricting or controlling the movement of traffic that could interfere with emergency vehicle access. If a partial street closure (i.e., a lane closure) would be required, notice would be provided to the Long Beach Police Department, and flag persons would be used to facilitate the traffic flow until construction is complete. With implementation of Mitigation Measure 4.12.2, potential impacts related to emergency access during construction would be less than significant.

Operation. The proposed Project involves replacement of an existing pool facility, as well as modifications to the existing Olympic Plaza, that would restrict vehicular use and increase pedestrian and bicycle enhancements. The emergency access to/from the site will be designed to meet all applicable City Codes and standards and would be subject to review by the City Fire and Police Departments for compliance with fire and emergency access standards and requirements. The redesign of Olympic Plaza will meet fire access lane standards. The final site plan will be subject to Site Plan Review by all relevant City Departments, and Site Plan Review approval by the Planning Commission. No changes to the existing parking lots (Pier Parking Lot and Beach Parking Lot) are included as part of the proposed Project. Therefore, operational impacts of the proposed Project to emergency access are considered less than significant and no mitigation is required.

Threshold 4.12.6: Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Less than Significant Impact. The proposed Project reconstructs the Belmont Pool at the existing location, which is near a public transit stop and a Class I bike path. Existing pathways through the passive park would be rerouted to East Olympic Plaza to allow for utilization of the proposed pedestrian and bicycle enhancements. The facility would continue to be accessible for users of transit, bicycle, and pedestrian modes of travel because the site design allows for pedestrian linkages. The proposed pool facility would continue to be accessed via Long Beach Transit bus service (Routes 121 and 131) as well as sidewalks and the Shoreline Beach Bike Path (Class I off-street bike path). Therefore, the Project would not conflict with adopted plans supporting alternative transportation. The proposed Project would have less than significant impacts relative to public transit, bicycle, or pedestrian facilities, and no mitigation is required.

4.12.6 Cumulative Impacts

Construction of the proposed Project is anticipated to commence in 2017 at the earliest and be completed within approximately 18 months. Cumulative projects include any committed and/or approved developments near the Project site that will generate future vehicle trips that would utilize intersections identified in the Project traffic study area. According to the City, one project was identified within the cumulative project study area; the Leeway Sailing Center Pier Replacement. The City of Long Beach proposes to demolish and rebuild the existing Leeway Sailing Pier, Dock, and

Gondola Shed Structure in its general same location and footprint. The proposed rebuild is required to replace deteriorated infrastructure, which suffers from dry rot, corrosive sea spray, and deferred maintenance. The existing gondola shed structure will be replaced in its general same location on the pier and will provide the same uses. A new 80 ft accessible gangway will connect the pier to a new 2,094 sf timber floating dock to improve American with Disabilities Act access. This project is proposing to reconstruct the existing pier without expanding the size of the existing operation. Therefore, this project will not contribute new traffic to any of the study area intersections. Because no additional traffic from cumulative projects is anticipated at the study area intersections, no additional cumulative operational traffic impacts would occur. No mitigation is required.

4.12.7 Level of Significance Prior to Mitigation

All 10 intersections would operate a satisfactory LOS (LOS D or better, as defined by the City) during project construction and operation. Because construction and operation of the proposed Project would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, it would have a less than significant impact relative to this threshold, and no mitigation is required (Threshold 4.12.1).

Although construction and operation of the proposed Project would result in less than significant traffic impacts, in the event that a special event attracting more than 450 spectators is held at Belmont Pool, an Event Traffic Management Plan would need to be developed to address potential impacts to traffic circulation. Specifically, an Event Traffic Management Plan would identify the steps necessary to avoid potential significant traffic congestion and parking impacts. Without implementation of an Event Traffic Management Plan, these limited time traffic impacts to the surrounding residences and businesses may be significant and adverse (Threshold 4.12.1).

There are no arterial monitoring stations identified in the 2010 CMP for the County near the proposed Project, and the Project is not anticipated to conflict with standards established for designated roads or highways. The proposed Project would have a less than significant impact relative to the adopted CMP, and no mitigation is required (Threshold 4.12.2).

While operation of the proposed Project would involve the replacement of the former pool facility, which would be designed to meet all applicable City Codes and standards related to emergency access, potential temporary lane closures during project construction could restrict access for emergency vehicles. As such, mitigation in the form of a Construction Traffic Management Plan, which would identify traffic controls for any potential street closures, detours, or other disruption to traffic circulation and public transit routes, is necessary for the proposed Project. Without implementation of mitigation, potential impacts related to emergency access during construction would potentially be significant and adverse (Threshold 4.12.5).

The Project would not conflict with adopted plans supporting alternative transportation and would not interfere with existing bicycle paths or bus routes in the vicinity of the Project site. Therefore, the proposed Project would have less than significant impacts relative to public transit, bicycle, or pedestrian facilities, and no mitigation is required (Threshold 4.12.6).

4.12.8 Mitigation Measures

Implementation of the following mitigation measures will ensure that potential traffic impacts resulting from Project implementation would be reduced to less than significant levels.

Mitigation Measure 4.12.1: Event Traffic Management Plan. In the event that a large special event (defined as more than 450 spectators) is held at Belmont Pool, the City of Long Beach (City) Parks and Recreation Director, or designee, shall develop an Event Traffic Management Plan for review and approval by the City Traffic Engineer. The plan shall be designed by a registered Traffic Engineer and shall address potential impacts to traffic circulation and the steps necessary to minimize potential impacts (e.g., active traffic management and/or off-site parking and shuttles) during the large special event.

Mitigation Measure 4.12.2: Construction Traffic Management Plan. Prior to the issuance of any demolition permits, the City of Long Beach (City) Parks and Recreation Director, or designee, shall develop a Construction Traffic Management Plan for review and approval by the City Traffic Engineer. The plan shall be designed by a registered Traffic Engineer and shall address traffic control for any street closure, detour, or other disruption to traffic circulation and public transit routes and shall ensure that emergency vehicle access is maintained. The plan shall identify the routes that construction vehicles shall use to access the site, the hours of construction traffic, traffic controls and detours, and off-site staging areas. The plan shall also require that a minimum of one travel lane in each direction on Ocean Boulevard be kept open during construction activities. Access to Belmont Veterans' Memorial Pier, the Shoreline Beach Bike Path, and the beach shall be maintained at all times. The Construction Traffic Management Plan shall also require that access to the pier, the bike path, and the beach be kept open during construction activities. The plan shall also require the City to keep all haul routes clean and free of debris including, but not limited to, gravel and dirt.

4.12.9 Level of Significance After Mitigation

Potential impacts to Traffic from the proposed Project would be mitigated to less than significant levels with implementation of Mitigation Measures 4.12.1 and 4.12.2. Therefore, the proposed Project would not result in any significant unavoidable impacts related to Traffic.

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4.13 UTILITIES AND SERVICE SYSTEMS

The following section provides an analysis of utilities for the proposed Belmont Pool Revitalization Project (proposed Project) in the City of Long Beach (City). Utilities associated with the proposed Project include the provision or disposition of electricity, natural gas, water, wastewater, and solid waste disposal services. Information on previous conditions for the former Belmont Pool facilities presented in this section is based on a variety of sources. As such, specific references are identified within the subsection for each respective issue. This section addresses the following utility service systems (the service provider is noted in parenthesis):

- Electricity (Southern California Edison [SCE])
- Natural Gas (City of Long Beach Gas and Oil Department [LBGO])
- Water (Long Beach Water Department [LBWD])
- Wastewater (Los Angeles County Sanitation Districts [LACSD])
- Solid Waste (LACSD)

Scoping Process

The City distributed the first Notice of Preparation (NOP) for the Draft Environmental Impact Report (EIR) between April 18, 2013, and May 17, 2013. The City received three comment letters in response to the first NOP during the public review period. Only one comment letter raised issues regarding utilities. LACSD stated that wastewater flow originating from the Project site would discharge to the local sewer line, which is not maintained by LACSD, for conveyance to LACSD's Anaheim Street Trunk Sewer. LACSD also commented that the wastewater generated by the proposed Project would be treated at the Joint Water Pollution Control Plant (JWPCP) located in the City of Carson. The LACSD letter further stated that the available capacity of LACSD's treatment facility is limited to levels associated with the approved growth identified by the Southern California Association of Governments (SCAG). As such, LACSD's response did not constitute a guarantee of wastewater service; instead, LACSD advised the City that LACSD intends to provide service up to the levels that are legally permitted.

Due to the revisions in the Project Description, the City re-issued an updated NOP for the Draft EIR between April 9, 2014, and May 8, 2014. The City received five comment letters in response to the second NOP during the public review period. Only one comment letter raised issues regarding utilities. LACSD reiterated its comments on the original NOP by stating that wastewater flow originating from the Project site would discharge to the local sewer line, which is not maintained by LACSD, for conveyance to either or both LACSD's Anaheim Street Trunk Sewer or the Joint Outfall C Unit 3D Trunk Sewer, and would be treated at the Carson JWPCP. LACSD also commented that the available capacity of LACSD's treatment facility is limited to levels associated with the approved growth identified by SCAG. Again, LACSD's response did not constitute a guarantee of wastewater service. LACSD advised the City that it intends to provide service up to the legally permitted levels. The recommendations and concerns raised during the scoping process related to utilities are addressed in this EIR section.

4.13.1 Methodology

The impact analyses presented in this section are based on information from the utility service providers identified above, including SCE, LBGO, LBWD, and LACSD. Additional information was further obtained from the service providers' websites.

4.13.2 Existing Environmental Setting

The *State of California Environmental Quality Act (CEQA) Guidelines*, Appendix F, Energy Conservation, states that EIRs are required to include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. The discussion below provides information pertaining to existing energy supplies and energy use patterns in the region and locality.

Electricity. The Project site is within the service territory of SCE, an independently owned utility, which provides electrical service throughout the City. SCE distributes electricity purchased through the California Power Exchange.

In January 2014, the California Energy Commission (CEC) published the Final Forecast for California Energy Demand for the years 2014 through 2024. According to the CEC, the electricity consumption in the SCE service area was estimated to be 100,365,000,000 kilowatt-hours (kWh) in both the high- and low-demand scenarios in 2012. According to the CEC, the electricity consumption in the SCE service area was estimated to be 99,786,000,000 kWh in the low-demand scenario and 103,936,000,000 kWh in the high-demand scenario in 2015.^{1,2} According to the CEC, electricity consumption in the SCE service area is projected to reach between 109,206,000,000 kWh in the low-demand scenario and 120,745,000,000 kWh in the high-demand scenario in 2024.³ Peak electricity demand is projected to reach between 24,482,000 kWh and 27,513,000 kWh in 2024.

Based on calculations using the California Emissions Estimator Model (CalEEMod) (Version 2013.2.2) the former Belmont Pool facilities were estimated to consume approximately 421,344 kWh per year (kWh/yr) of electricity. As such, the annual electrical demand associated with previous conditions on site represents approximately 0.0004 percent of the electricity consumption in the SCE service area in the years 2012 and 2015.

Natural Gas. The Project site is within the service territory of LBGO. Established in 1924, the LBGO provides natural gas services to residents and businesses of Long Beach and Signal Hill,

¹ California Energy Commission (CEC). January 2014. California Energy Demand 2014-2024 Final Forecast. Volume 2: Electricity Demand by Utility Planning Area. January 2014 Website: <http://www.energy.ca.gov/2013publications/CEC-200-2013-004/CEC-200-2013-004-V2-CMF.pdf> (accessed February 20, 2015).

² The CEC Report provides energy consumption forecasts for 2012 and 2015. No forecast is provided for 2014.

³ CEC. January 2014. California Energy Demand 2014-2024 Final Forecast. Volume 2: Electricity Demand by Utility Planning Area. January 2014 Website: <http://www.energy.ca.gov/2013publications/CEC-200-2013-004/CEC-200-2013-004-V2-CMF.pdf> (accessed February 20, 2015).

serving approximately 500,000 residents and businesses in the Cities of Long Beach and Signal Hill through over 1,800 miles (mi) of LBGO pipelines.¹ According to the 2014 California Gas Report, Long Beach’s customer load profile is 56 percent residential and 44 percent commercial/industrial. The City’s gas use is expected to remain fairly constant, increasing from 9.0 billion cubic feet (bcf) in 2014 to 9.6 bcf by 2035.²

Based on CalEEMod estimations, the annual natural gas demand associated with the former Belmont Pool facilities were determined to be approximately 0.00096 bcf per year. Therefore, the annual natural gas demand associated with previous land uses on the project site represented approximately .0001 percent of the current natural gas demand (9.0 bcf) in the LBGO service area in 2014.

Water. The LBWD provides water service to the entire City, including the Project site, through a system of underground pipelines. Over 900 mi of water mains are maintained within LBWD’s service area. As illustrated in Table 4.13.A, the major sources of water for the LBWD include water purchased from the Metropolitan Water District of Southern California (MWDSC), groundwater pumped and treated by the LBWD, recycled water and, possibly in the future, desalinated seawater.³ The LBWD is conducting ongoing research of the technological, environmental, and financial feasibility of seawater desalination as a source of potable water.

Table 4.13.A: Water Supplies – Current and Projected (af/year)

Water Purchased From	2010	2015	2020	2025	2030	2035
Whole Purchases: MWDSC	22,237	24,520	24,046	18,551	17,477	11,929
Groundwater: LBWD Central Basin Aquifer Rights	34,655	33,000	33,500	34,000	34,500	35,000
Desalinated Water (Potable Supply)				5,000	5,000	10,000
Recycled Water	6,556	10,100	11,300	13,400	13,700	14,000
Total	63,448	67,620	68,846	70,951	70,677	70,929

Source: Long Beach Water Department. *2010 Urban Water Management Plan*, Table 16-Water Supplies- Current and Projected (af/year).

af/year = acre-feet per year

MWDSC = Metropolitan Water District of Southern California

LBWD = Long Beach Water Department

As shown in Figure 4.13.1, Existing Utilities in the Project Vicinity, LBWD’s potable water lines are located in the streets surrounding the Project site. The annual water demand associated with previous conditions on site was calculated using CalEEMod. Based on this model, the Project site was estimated to consume approximately 19.61 acre-feet per year (af/year).

¹ Long Beach Gas and Oil (LBGO). Welcome to Long Beach Gas & Oil Department Website: <http://www.longbeach.gov/lbgo/> (accessed January 21, 2015).

² California Gas and Electric Utilities. *2014 California Gas Report*. Website: <http://www.socalgas.com/regulatory/documents/cgr/2014-cgr.pdf> (accessed January 23, 2015).

³ City of Long Beach Water Department (LBWD). *2010 Urban Water Management Plan*. Website: http://www.lbwater.org/sites/default/files/file_attach/pdf/2010_uwmp.pdf (accessed February 23, 2015).

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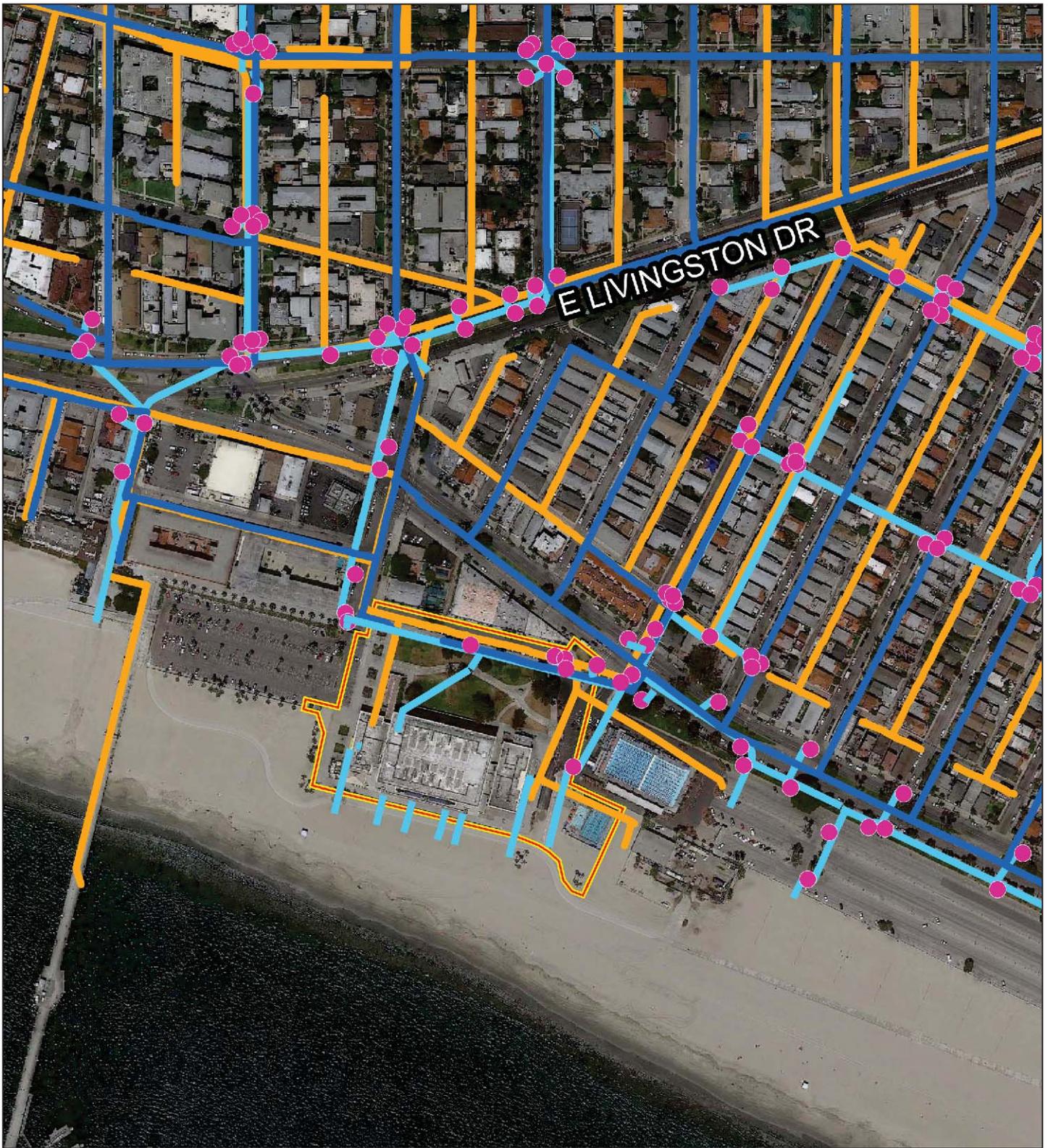
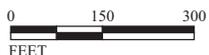


FIGURE 4.13.1

LSA

LEGEND

- Project Site
- Potable Water Lines
- Existing City Sewer Lines
- Existing Storm Drain Pipelines
- Reclaimed Water Lines
- Storm Drain Device



SOURCE: DigitalGlobe (4/08); City of Long Beach (2008, 1/09)

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Belmont Pool Revitalization Project
Existing Utilities in the Project Vicinity

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The annual water demand associated with previous conditions on site represents approximately 0.031 percent of the water supply in the LBWD service area in 2010 and 0.029 percent of the water supply in the LBWD service area in 2015.

Wastewater. The LBWD operates and maintains nearly 765 mi of sanitary sewer lines and delivers over 40 million gallons per day (mgd) of wastewater to LACSD facilities located on the north and south sides of the City. Currently, a majority of the City's wastewater is delivered to the JWPCP of LACSD. The remaining portion of the City's wastewater is delivered to the Long Beach Water Reclamation Plant of LACSD. The JWPCP is located at 24501 S. Figueroa Street in the City of Carson and has a design capacity of 400 mgd, and currently processes an average flow of 280 mgd.¹

The LACSD owns, operates, and maintains the large trunk sewers that form the backbone of the regional wastewater conveyance system. Local collector and/or lateral sewer lines are the responsibility of the jurisdiction in which they are located. The proposed Project is located within the jurisdictional boundaries of LACSD District 29. LACSD owns, operates, and maintains approximately 1,400 mi of sewers, ranging from 8 to 144 inches in diameter that convey approximately 500 mgd of wastewater to 11 wastewater treatment plants. Included in LACSD's wastewater collection system are 48 active pumping plants located throughout the County of Los Angeles (County).²

As noted in the comment letter (May 6, 2014) received by the LACSD, wastewater flow originating from the existing Project site discharges to a local sewer line, which is not maintained by the LACSD. Subsequently, wastewater in this sewer line is conveyed to either the LACSD's Anaheim Street Trunk Sewer located in 11th Street at Orange Avenue or the LACSD's Joint Outfall C Unit Trunk Sewer, located in 11th Street at Belmont Avenue. The 36-inch diameter Anaheim Street Trunk Sewer has a design capacity of 19.7 mgd and conveyed a peak flow of 5.7 mgd when last measured in 2012. The 51-inch diameter Joint Outfall C Unit Trunk Sewer has a design capacity of 29.2 mgd and conveyed a peak flow of 12.2 mgd, when last measured in 2012.³

As shown in Figure 4.13.1, the Project site has existing sanitary sewer lines that run along the perimeter of the Project site. The former Belmont Pool facilities generated wastewater from pool maintenance, restrooms and shower facilities, and the restaurant uses (La Palapa). According to the LACSD, a gymnasium with shower/locker room facilities would generate approximately 600 gallons per day (gpd) of wastewater per 1000 square feet (sf). In addition, according to LACSD, a restaurant use would generate approximately 1,000 gpd of wastewater per 1,000 sf. As such, it was estimated that the former Belmont Pool facility generated approximately 27,357 gpd⁴ of wastewater and the previous restaurant uses associated with the former Belmont Pool facilities generated approximately 5,665 gpd of wastewater. The total wastewater generated was 33,022 gpd.

¹ Los Angeles County Sanitation District (LACSD). Sewage Treatment. Website: <http://www.lacsd.org/wastewater/wwfacilities/jwpcp/> (accessed January 21, 2015).

² LACSD.Wastewater Collection Systems. Website: <http://www.lacsd.org/wastewater/wwfacilities/wcs.asp> (accessed January 21, 2015).

³ LACSD. Letter dated May 6, 2014.

⁴ LACSD. Table 1, Loadings for Each Class of Land Use. Website: <http://www.lacsd.org/civica/filebank/blobload.asp?BlobID=3531> (accessed February 23, 2014).

Storm Drain. Storm water runoff from the Project site currently drains to a 12-inch reinforced concrete pipe (RCP) that runs under Olympic Plaza Drive, that then connects to an 18-inch RCP that transitions to a 24-inch RCP in Bennett Drive flowing northeast. The majority of the Project site sheet flows into Olympic Plaza Drive or one of the adjacent parking lots to the west or east of the Project site. A 10-inch storm drain previously ran from the former swimming pool and connected to the 12-inch storm drain in Olympic Plaza Drive, as well as several other down drains from the building.

Solid Waste. The City is a member of the LACSD. Within the City and at the Project site, solid waste collection services are provided by the City's Environmental Services Bureau. Citizens and businesses in the City generate an average of 368,000 tons of residential, commercial, and industrial waste each year. A large majority of the City's solid waste is disposed of at the Southeast Resource Recovery Facility (SERRF).¹ The City and LACSD have a Joint Powers Agreement to operate the SERRF, located at 120 Pier S Avenue in Long Beach. SERRF is a refuse-to-energy transformation facility that reduces the volume of solid waste by approximately 80 percent while creating electrical energy. The SERRF produces 36 megawatts (MW) of electricity for SCE per day,² which is enough to supply 35,000 homes with electrical power. Based on CalEEMod estimations, the Project site previously generated approximately 1 ton of solid waste per day.

The SERRF is the closest active solid waste facility operated by LACSD that could be used to dispose of waste generated at the Project site. Solid waste from the existing Project site was collected and trucked to the SERRF where it was processed through one of three boilers. In addition, the SERRF performs "front-end" and "back-end" recycling by recovering items such as white goods prior to incineration and collecting metals removed from the boilers after incineration. Each month, an average of 825 tons of metal are recycled rather than sent to a landfill. The Solid Waste Facility Permit from the County Solid Waste Management Program for the SERRF authorizes the disposal of a maximum of 2,240 tons per day. Currently, the SERRF accepts approximately 1,320 tons per day. Remaining capacity and estimated closure dates are not determined because the SERRF is a transformation facility that converts solid waste to energy and ash.³ In 2011, approximately 203,040 tons, or 47 percent, of the solid waste disposed of by Long Beach residents and businesses were disposed of at the SERRF.⁴

As of October 31, 2013, the Puente Hills Landfill closed after 56 years of operation. Before the Puente Hills Landfill closed, the Puente Hills MRF accepted approximately 200 tons of waste per day. According to LACSD, upon the closure of the Puente Hills Landfill, residents and commercial haulers were encouraged to use other nearby LACSD's facilities for disposal and recycling. Alternative disposal options include two ramped-up Material Recovery Facilities (MRF) run by LACSD, the Downey Area Recycling and Transfer Facility (DART) in Downey, and the Puente Hills MRF, situated at the base of the Puente Hills Landfill. Beginning on November 1, 2013, the Puente

¹ LBGO. SERF. Website: <http://www.longbeach.gov/lbgo/serf/> (accessed January 21, 2015).

² LACSD. *Southeast Resource Recovery Facility (SERRF) Brochure*. Website: <http://www.lacsd.org/solidwaste/swfacilities/rtefac/serf/brochure.asp> (accessed June 6, 2014).

³ LBGO. SERF. Website: <http://www.longbeach.gov/lbgo/serf/> (accessed January 21, 2015).

⁴ Los Angeles County Department of Public Works (LADPW), Environmental Programs Division. *Countywide Integrated Waste Management Plan, 2012 Annual Report August 2013*. Website: <http://dpw.lacounty.gov/epd/swims/docs/pdf/CIWMP/2012.pdf> (accessed January 22, 2015).

Hills MRF is able to accept up to approximately 3,000 tons of waste per day. Any residual waste is taken to out-of-county landfills.

According to the Los Angeles County Integrated Waste Management Plan 2012 Annual Report, nearly all solid waste in Los Angeles County is transported to disposal sites by truck. However, as public opposition to siting new or expanding existing disposal facilities near urban areas has grown, sites farther from the Los Angeles Basin have become more desirable, despite the costs associated with longer transport distances. For some sites, such as the Mesquite Regional Landfill in Imperial County, which is 210 miles from downtown Los Angeles, rail transport is an efficient means to transport solid waste to remote disposal sites. The Waste-by-Rail system will provide long-term disposal capacity to replace local landfills as they reach capacity and close. The starting point of the Waste-by-Rail System is the Puente Hills Intermodal Facility (PHIMF), located near the Puente Hills Materials Recovery Facility. Residual waste from materials recovery facilities and transfer stations located throughout the County will be loaded onto rail carts at the PHIMF, and then transported via rail to the Mesquite Regional Landfill for disposal. Completed in 2011, owned and operated by LACSD; the Mesquite Regional Landfill is permitted to receive up to 20,000 tons of municipal solid waste per day. Through the available MRFs run by LACSD; the temporary use of landfills in Orange, San Bernardino and Riverside Counties; and plans for future implementation of the waste-by-rail landfill system, Los Angeles County will be able to meet projected landfill needs.

4.13.3 Regulatory Setting

Federal Policies and Regulations.

Federal and State agencies regulate energy use and consumption through various means and programs. At the federal level, the United States Department of Transportation (DOT), the United States Department of Energy (DOE), and the United States Environmental Protection Agency (EPA) are the three federal agencies with substantial influence over energy policies and programs. Generally, federal agencies influence and regulate transportation energy consumption through establishing and enforcing fuel economy standards for automobiles and light trucks, through funding energy-related research and development projects, and through funding transportation infrastructure improvements. At the State level, the California Public Utilities Commission (CPUC) and the CEC are the two agencies with authority over different aspects of energy. The CPUC regulates privately owned utilities in the energy, rail, telecommunications, and water fields. The CEC collects and analyzes energy-related data; prepares statewide energy policy recommendations; plans, promotes, and funds energy efficiency programs; and adopts and enforces appliance and building energy-efficiency standards.

State Policies and Regulations.

Assembly Bill 939 – California Integrated Waste Management Act of 1989. The California Integrated Waste Management Act of 1989 (Assembly Bill [AB] 939) introduced an integrated waste management hierarchy to guide local agencies in the implementation of source reduction, recycling, composting, and environmentally safe transformation and land disposal. It required each county to establish a task force to coordinate the development of City Source Reduction and Recycling Elements (SRREs) and a countywide siting element. It also required each county to prepare, adopt, and submit an Integrated Waste Management Plan (IWMP) to the California

Integrated Waste Management Board (CIWMB), which was established by AB 939 to ensure the monitoring and enforcement of AB 939 mandates. Through source reduction, recycling, and composting activities, AB 939 required each city or county to divert 50 percent of all solid waste by January 1, 2000.

To note, on January 1, 2010, California's recycling and waste diversion efforts were streamlined into the new Department of Resources Recycling and Recovery – CalRecycle. CalRecycle manages programs created through two landmark initiatives – the Integrated Waste Management Act and the Beverage Container Recycling and Litter Reduction Act – that were formerly part of the CIWMB and the Department of Conservation (DOC). Now housed in the Natural Resources Agency, CalRecycle merges the duties of the CIWMB with those of the DOC's Division of Recycling to best protect public health and the environment by effectively and efficiently managing California's waste disposal and recycling efforts.

Although the requirements of AB 939 are directly applicable to cities and counties, AB 939 is also identified as a relevant regulation because individual development projects within the City contribute to the determination regarding whether the City is able to divert 50 percent of all solid waste.

Solid Waste Disposal Measurement Act (Assembly Bill 1016). The Solid Waste Disposal Measurement Act maintains the 50 percent diversion requirement from the Integrated Waste Management Act, but changes to a disposal-based measurement system, expressed as the 50 percent Equivalent Per Capita Disposal Target. This builds upon AB 939 by implementing a simplified and timelier indicator of jurisdiction performance that focuses on reported disposal at Board-permitted disposal facilities. More specifically, Senate Bill (SB) 1016 changes to a disposal-based indicator: the per-capita disposal rate. CalRecycle has calculated each jurisdiction's 50 percent equivalent per-capita disposal target (the diversion goal required under AB 939). For most jurisdictions, the 50 percent per-capita disposal target is based on the average of 50 percent of generation in 2003 through 2006 expressed in terms of per-capita disposal. Under the new measurement system, to meet the 50 percent target, a jurisdiction needs to annually dispose of an amount equal to or less than its 50 percent equivalent per-capita disposal target. The new per-capita disposal rate approach is not determinative of jurisdiction compliance. CalRecycle will use per-capita disposal as an indicator in evaluating program implementation and local jurisdiction performance. CalRecycle's evaluation will be focused on how jurisdictions are implementing their programs. The new per-capita disposal measurement system (SB 1016, Wiggins, Chapter 343, Statutes of 2008) became effective January 1, 2009.

Senate Bill 1327 – California Solid Waste Reuse and the Recycling Access Act of 1991. The California Solid Waste Reuse and Recycling Access Act of 1991, as amended, requires individual development projects to provide adequate storage areas for the collection and removal of recyclable materials. The size of these storage areas is to be determined by the appropriate jurisdiction's ordinance. If no such ordinance exists within the jurisdiction, the CIWMB-adopted ordinance shall take effect.

As discussed below, Chapter 8.60 of the Long Beach Municipal Code (LBMC) addresses solid waste, recycling, and litter prevention in the City. Despite the requirements set forth in Chapter 8.60 of the LBMC, the requirements in the California Solid Waste Reuse and the Recycling Access Act of 1991 are conservatively included in this analysis as all development projects within the State are required to provide adequate storage area for the collection and removal of recyclable materials per the Act.

Senate Bill 1374 – Construction and Demolition Waste Materials Diversion Requirements. SB 1374 (Kuehl), passed in 2002, requires that jurisdictions include in their annual AB 393 report a summary of the progress made in diverting construction and demolition waste. The legislation also requires that the CIWMB complete five items with regard to the diversion of construction and demolition waste: (1) adopt a model ordinance for diverting 50 to 75 percent of all construction and demolition debris from landfills; (2) consult with representatives of the League of California Cities, the California State Association of Counties, private and public waste services and building construction materials industry and construction management personnel during the development of the model ordinance; (3) compile a report on programs, other than the model ordinance, that local governments and general contractors can implement to increase the diversion of construction and demolition debris; (4) post a report on the agency’s website for general contractors on methods by which contractors can increase diversion of construction and demolition waste materials; and (5) post on the agency’s website a report for local governments with suggestions on programs, in addition to the model ordinance, to increase diversion of construction and demolition waste materials.

Although the requirements of SB 1374 are directly applicable to cities and counties, SB 1374 is also identified as a relevant regulation due to the fact that individual development projects within the City of Long Beach contribute to the determination whether the City is able to divert 50 to 75 percent of all construction and demolition debris from landfills.

Los Angeles County Integrated Waste Management Plan (1999). The Los Angeles County Integrated Waste Management Plan (CoIWMP), approved by the CIWMB on June 23, 1999, is a set of planning documents that sets forth a regional approach for the management of solid waste through source reduction, recycling and composting, and environmentally safe transformation and disposal.

The CoIWMP recognizes that landfills will remain an integral part of the County’s solid waste management system in the foreseeable future and assures that the waste management practices of cities and other jurisdictions in the County are consistent with the solid waste diversion goals of AB 939.

The County continually evaluates landfill needs and capacity through its preparation of the CoIWMP annual reports. Within each annual report, future landfill disposal needs over the next 15-year planning horizon are addressed, in part, by determining the available landfill capacity. Landfill capacity is determined by several factors including: (1) the expiration of various landfill permits (e.g., land use permits, waste discharge requirement permits, solid waste facilities permits, and air quality permits); (2) restrictions to accepting waste generated only within a

landfill's particular jurisdiction and/or watershed boundary; and (3) operational constraints. The most recent annual report was completed for 2012.

The CoIWMP includes the Countywide Integrated Waste Management Summary Plan (Summary Plan), which was approved by the CIWMP on June 23, 1999. Pursuant to AB 939, the Summary Plan describes the actions to be taken to achieve the mandated waste diversion goals of AB 939. The Summary Plan establishes Countywide goals and objectives for integrated waste management; establishes an administrative structure for preparing and managing the Summary Plan; describes the Countywide system of governmental solid waste management infrastructure; describes the current system of solid waste management in the County and the cities; summarizes the types of solid waste programs; describes programs that could be consolidated or coordinated Countywide; and analyzes how these Countywide programs are to be financed. As a result, a number of changes have occurred, such as regional solid waste management, demographics, and public awareness of environmental stewardship. At the same time, the County and the cities continue to enhance and expand their waste reduction efforts in response to changing conditions. As of 2011, the CIWMB approved the County's second Five-Year Review Report in August 2010, which concluded that an update to the Summary Plan is not necessary.¹

As part of the CoIWMP and pursuant to AB 939, the County also prepared the Countywide Siting Element (Siting Element), which identifies goals, policies, and strategies that provide for the proper planning and siting of solid waste disposal and transformation facilities for the next 15 years. The Siting Element was approved by the CIWMB on June 24, 1998, and provides strategies and establishes siting criteria for evaluating the development of needed disposal and transformation facilities. In August 2010, the CIWMB approved the County's Second Five-Year Review Report, which provides a comprehensive analysis on the adequacy of the Summary Plan and Siting Element. The Five-Year Review Report confirmed the need to revise the Siting Element. The County continues to work with the Los Angeles County Integrated Waste Management Task Force in revising the Siting Element to reflect the most recent information regarding remaining landfill disposal capacity and the County's current strategy for maintaining adequate disposal capacity. The revised Siting Element would cover the 15-year planning period beginning 2010 through 2025. The goal is to complete the entire revision process, disseminate the document for public comment, and submit the final draft Siting Element document to CIWMB by early 2016.

The CIWMB is conservatively identified as a relevant regulation as its planning documents set forth the regional approach for the management of solid waste through source reduction, recycling and composting, and environmentally safe transformation and disposal. Individual development projects throughout the region contribute to the determination whether the CIWMB is ultimately implemented in a manner consistent with its desired approach.

Assembly Bill 341. On October 6, 2011, Governor Brown signed AB 341 establishing a State policy goal that no less than 75 percent of solid waste generated be source reduced, recycled, or composted by 2020. The bill also mandates that local jurisdictions implement commercial

¹ Los Angeles County Department of Public Works (LADPW), Environmental Programs Division. *Countywide Integrated Waste Management Plan, 2012 Annual Report August 2013*. Website: <http://dpw.lacounty.gov/epd/swims/docs/pdf/CIWMP/2012.pdf> (accessed January 22, 2015).

recycling by July 1, 2012. Finally, AB 341 requires California commercial enterprises and public entities that generate four or more cubic yards per week of waste, and multi-family housing complexes with five or more units, to adopt recycling practices.

Title 24 of the California Code of Regulations. Energy consumption by new buildings in California is regulated by the State Building Energy Efficiency Standards, embodied in Title 24 of the California Code of Regulations (CCR). The efficiency standards apply to both the new construction and rehabilitation of both residential and nonresidential buildings and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit process. Local government agencies may adopt and enforce energy standards for new buildings, provided these standards meet or exceed Title 24 Building Code requirements. Title 24 regulates building energy consumption for heating, cooling, ventilation, water heating, and lighting with regard to both electricity and natural gas. These standards are typically updated every 3 years by the CEC. The 2013 Standards will continue to improve upon the current 2008 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2013 Standards went into effect on January 1, 2014, following approval of the California Building Standards Commission. Compliance with Title 24 energy efficiency requirements can be achieved through following a prescriptive approach outlined in the standards or following a performance approach using computer modeling. The prescriptive approach offers relatively little design flexibility but is easy to use, while the performance approach allows design flexibility that can be used to find the most cost-effective solutions, but which requires multiple calculations.

California Green Building Code (Title 24, Part 11). The purpose of the California Green Building Code (CALGreen Code) is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) planning and design; (2) energy efficiency; (3) water efficiency and conservation; (4) material conservation and resource efficiency; and (5) environmental air quality. The CALGreen Code has approximately 52 nonresidential mandatory measures and an additional 130 provisions that have been placed in the appendix for optional use. Some key mandatory measures for commercial occupancies include specified parking for clean air vehicles, a 20-percent reduction of potable water use within buildings, a 50-percent construction waste diversion from landfills, use of building finish materials that emit low levels of volatile organic compounds, and commissioning for new, nonresidential buildings over 10,000 sf. Through its adoption of the CALGreen Code, the California Building Standards Commission set minimum green building standards that may, at the discretion of any local government entity, be applied. Beginning on January 1, 2014, the Long Beach Department of Development Services is required by State law to enforce the 2013 Edition of California Building Standards Codes (a.k.a., Title 24 of the CCR) (including Part 11, CALGreen Code). All projects submitted before or on December 31, 2013, are permitted to comply with the 2010 Edition of the California Building Standards Code.

California Energy Commission and the California Environmental Quality Act. In 1975, largely in response to the oil crisis of the 1970s, the State Legislature adopted AB 1575 (also known as the Warren-Alquist Act), which created the CEC. The statutory mission of the CEC is to forecast future energy needs; license power plants of 50 MW or larger; develop energy technologies and renewable energy resources; plan for and direct State responses to energy emergencies; and, perhaps most importantly, promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code (PRC) Section 21100(b)(3) and *State CEQA Guidelines* Section 15126.4 to require EIRs to include, where relevant, mitigation measures proposed to minimize the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F to the *State CEQA Guidelines*. Appendix F is an advisory document that assists EIR preparers in determining whether a project would result in the inefficient, wasteful, and unnecessary consumption of energy.

Local Policies and Regulations.

City of Long Beach Municipal Code. Chapter 8.60 of the LBMC addresses solid waste, recycling, and litter prevention in the City. Sections 8.60.025 and 8.60.020 establish standards and guidelines regarding refuse and recycling receptacles for removing and conveying waste; Section 8.60.080 addresses waste requiring special handling (e.g., material likely to become airborne); and Section 8.60.080 discusses permitting surrounding refuse transportation. Chapter 18.67 discusses regulations surrounding the City's construction and demolition recycling program. Section 18.67.020 applies to all construction projects issued a building permit after January 1, 2014, and requires that each project having a valuation greater than \$200,000 to divert at least 60 percent of all project-related construction and demolition material.

As future property owners or occupants utilizing receptacles on the site would be serviced by the City, operational activities would be subject to the applicable requirements of Section 8.60 of the LBMC. In addition, since the proposed Project would have a valuation greater than \$200,000, it would be subject to the applicable requirements of Section 18.67.020 of the LBMC.

Title 15, Public Utilities, of the LBMC includes seven chapters regulating wastewater line connections and the development of new wastewater facilities. Specifically, Chapter 15.01, Sewer-Rules, Regulations, and Charges, establishes that the current edition of the rules, regulations, and charges governing water and sewer service are to be approved by the Board of Water Commissioners. Chapter 15.08, Sewers-Permits, specifies that only employees of the Water Department are allowed to construct or alter a public sewer, a sewage pumping plant, a private sewer in a public street, or a house connection, or make a connection from a building sewer to a house connection unless a permit from the general manager has been provided. Chapter 15.16, Sewers-Industrial Waste and Wastewater, requires a permit for the release of any industrial waste into a mainline sewer. Chapter 15.20, Sewers-Use Regulations, prohibits the discharge of any of the following items into any public sewer in the City:

- Earth, sand, rocks, ashes, gravel, plaster, concrete, glass, metal filings or metal objects, or other materials which will not be carried by the sewer stream or anything which may obstruct

- the flow of sewage in the sewer or any object which will cause clogging of a sewage pump or a sewage sludge pump;
- Any garbage which has not been first shredded so that each particle is not more than 3/8 of an inch in any dimension or any garbage containing broken glass;
 - Any solid or semisolid material such as garbage, trimmings, cuttings, offal, or other waste produced in the processing of meats, fruits, vegetables, foodstuffs or similar materials except garbage produced which meets the requirements of Chapters 15.04 through 15.28 and the rules, regulations, and charges governing water and sewer service;
 - Any volatile liquids or substances which can produce toxic or flammable atmospheres in the sewer;
 - Any compounds which may produce strong odors in the sewer or sewage treatment plant;
 - Any storm water or runoff from any roof, yard, driveway, or street;
 - Any materials which will cause damage to any part of the sewer system or abnormal sulphide generation or abnormal maintenance or operation costs of any part of the sewer system or which may cause any part of the sewer system to become a nuisance or a menace to public health or a hazard to workers or which will cause objectionable conditions at the final point of disposal of the sewage;
 - Any liquid having a temperature in excess of 120 degrees Fahrenheit (°F);
 - Unpolluted water from refrigeration systems, air conditioning systems, industrial cooling systems, swimming pools, or other unpolluted water from any origin except as authorized by the general manager; or
 - Any radioactive waste which constitutes or may constitute a public health hazard or endanger workmen charged with the maintenance of public sewers.

In addition, Chapter 15.20 includes regulations regarding building sewer lines across another lot; maintenance; existing sewers; backflow prevention; backflow noncompliance; septic tank abandonment; dumping contents of septic tanks or cesspools; opening manholes; damaging sewers; disposal of uncontaminated water; cellar and shower drainage; maintenance of facilities; and inspections. Finally, Chapters 15.24 and 15.28 include regulations for installations and inspections, respectively.

Given the proposed Project's location within the City of Long Beach, the above-referenced sections of the LBMC are applicable to the proposed Project.

Fire Flow. The City adopted the California Fire Code (CFC), with some amendments and modifications, as part of the City's Municipal Code. The modifications include amendments to fire extinguisher and storage requirements. Generally, the intent of the CFC is to prescribe regulations consistent with nationally recognized good practices for the safeguarding of life and property from the hazard of fire and explosion. Fire flow is the quantity of water available or needed for fire protection in a given area, and is normally measured in gallons per minute (gpm), as well as the duration of flow. Fire flow requirements, found in the City's Municipal Code, are

based on building types and floor area and range from 1,250 to 8,000 gpm at 20 pounds per square inch (psi).

In accordance with the CFC, the Long Beach Fire Department (LBFD) requires the installation of sprinkler systems in many new buildings, including retail buildings in excess of 5,000 square feet (sf) and buildings greater than 55 feet (ft) in height. In addition, on-site hydrants are required in any portion of a Project site that exceeds the allowable distance from a public hydrant located in the right-of-way. Fire flow requirements are subject to LBFD standards based on the type of building and its uses on a case-by-case basis.

City of Long Beach Construction and Demolition Ordinance. In response to State-mandated waste reduction goals, and as part of the City's commitment to sustainable development, the City of Long Beach adopted an ordinance that requires certain demolition and/or construction projects to divert at least 60 percent of waste through recycling, salvage, or deconstruction.

The Construction & Demolition Debris Recycling (C&D) Program, which took effect on November 5, 2007, aims to encourage permit applicants to recycle all C&D materials through a refundable performance deposit. The C&D program also encourages the use of green building techniques in new construction and promotes reuse or salvaging of recyclable materials in demolition, deconstruction, and construction projects.

In accordance with the C&D program, a Waste Management Plan (WMP) must be completed and approved prior to permits being issued. The WMP details how the Project will meet the requirement to divert 60 percent of C&D waste either through recycling, salvage, or deconstruction. At the conclusion of the Project, a final report detailing the amount of reuse, recycling, and disposal actually generated from the proposed Project must be submitted and approved by the City's Development Services Department prior to the Applicant receiving refund of the performance deposit. Projects that do not meet the 60 percent requirement may receive a partial refund in proportion to actual diversion.¹

City of Long Beach General Plan. Public safety goals and recommendations are included in the Public Safety Element (1975) of the City's General Plan. The following goal is applicable to the proposed Project:

Development Goal 6. Encourage transportation systems, utilities, industries, and similar uses to locate and operate in a manner consistent with public safety goals.

¹ City of Long Beach. Construction and Demolition Ordinance. Website: <http://www.lbds.info/civica/filebank/blobload.asp?BlobID=2529> (accessed June 9, 2014).

4.13.4 Impact Significance Criteria

The thresholds for impacts related to geology and soils used in this analysis are consistent with Appendix G of the *State CEQA Guidelines*. The proposed Project may be deemed to have a significant impact with respect to utilities and service systems if it would:

- Threshold 4.13.1:** Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (RWQCB);
- Threshold 4.13.2:** Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Threshold 4.13.3:** Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Threshold 4.13.4:** Have sufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements;
- Threshold 4.13.5:** Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve projected demand in addition to the provider's existing commitments;
- Threshold 4.13.6:** Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs;
- Threshold 4.13.7:** Comply with federal, State, and local statutes and regulations related to solid waste;
- Threshold 4.13.8:** Include a new or retrofitted storm water treatment control Best Management Practice (BMP), (e.g., water quality treatment basin, constructed treatment wetland), the operation of which could result in significant environmental effects (e.g., increased vectors and odors);
- Threshold 4.13.9:** Result in substantial adverse physical impacts associated with the provision of new or physically altered energy transmission facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable levels of service; or
- Threshold 4.13.10:** Result in substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: including fire protection, police protection, schools, or other public facilities.

Threshold 4.13.9 was not evaluated in the Initial Study (IS) prepared for this Project. It has been included in this Draft EIR in response to Appendix F of the *State CEQA Guidelines*, which requires that EIRs include a discussion of potential energy impacts of a proposed project with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (refer to PRC 21100(b)(3) and Appendix F of the *State CEQA Guidelines*). Due to the fact that the proposed Project would redevelop the Project site with expanded Belmont Pool facilities, and as such, would not include on-site housing or result in population growth, the IS provided in Appendix A determined that the proposed Project would not result in impacts associated with the provision of new or physically altered governmental facilities related to fire protection, police protection, schools, libraries, and City resources (i.e., City staff) (Threshold 4.13.10). Therefore, these topics are not analyzed further in the Draft EIR.

CEQA Baseline. At the time the NOP was published (April, 2014), the project site contained both the Belmont Pool facilities and the outdoor temporary pool (opened in December 2013 to provide swimming facilities while the permanent facility is under construction). Although the site contained the former Belmont Pool building at the time of the NOP, the facility was subsequently demolished in February 2015 to alleviate an imminent public safety threat due to the seismically unsafe condition of the building.

The inclusion of the former building for assessing utility impacts is appropriate because the site has been dedicated as the Belmont Pool Plaza since 1962 and in use for approximately 45 years as a recreational and competitive pool facility. Substantial evidence supports the determination that the Belmont Pool building as the baseline for utility impacts is appropriate because it is based on recent historical use, its long-term presence on the project site, and consistency with the City's land use designations for the site.

4.13.5 Project Impacts

Threshold 4.13.1: Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (RWQCB)?

Less than Significant Impact.

Construction. Wastewater from the Project site would be treated at LACSD's JWPCP. This facility is responsible for disposal of treated wastewater. The Los Angeles Regional Water Quality Control Board (RWQCB) regulates the treatment of wastewater at treatment plants and the discharge of treated wastewater into receiving waters. LACSD's JWPCP is responsible for adhering to Los Angeles RWQCB regulations as they apply to wastewater generated by the Project. As discussed in Section 4.8, Hydrology and Water Quality, due to the depth to groundwater (between 6 and 9 ft below ground surface [bgs]) and the anticipated depth of excavation (up to 13 ft below existing grade), there is a potential for the groundwater table to be encountered during excavation, which may require groundwater dewatering. As specified in Mitigation Measure 4.8.2, any groundwater dewatering during excavation would be conducted in accordance with the Los Angeles RWQCB's Groundwater Discharge Permit, which would require testing and treatment (as necessary) of groundwater encountered during groundwater dewatering prior to release to a storm drain. If groundwater used during construction of the

proposed Project cannot meet discharge limitations specified in the Ground Water Discharge Permit, a permit would be obtained from LACSD to dispose of the groundwater to the sewer system. The groundwater would have to meet LACSD discharge limitations prior to discharge to the sewer system. The discharge limitations ensure that the groundwater does not contain constituents in levels that would affect the LACSD JWPCP's ability to comply with the Los Angeles RWQCB regulations. In addition, LACSD would ensure they have adequate capacity to accommodate the discharged groundwater prior to issuing a permit. Therefore, since the capacity and discharge limitations of the treatment facility that serve the Project would not be exceeded, impacts regarding the ability of the treatment facility to treat and dispose of wastewater would be less than significant, and no mitigation is necessary.

Operation. As stated above, wastewater from the Project site would be treated at LACSD's JWPCP. This facility is responsible for disposal of treated wastewater. The Los Angeles RWQCB regulates the treatment of wastewater at treatment plants and the discharge of treated wastewater into receiving waters. LACSD's JWPCP is responsible for adhering to the Los Angeles RWQCB regulations as they apply to wastewater generated by the proposed Project. LACSD's JWPCP has been designed to treat typical wastewater flows from different land uses in the City of Long Beach and the greater Los Angeles area. The proposed Project would comply with all applicable sections of Title 15, Public Utilities, of the LBMC, and as such, would generate wastewater flows typical of similar uses in the City. In addition, the Project site has been developed with a recreational pool facility for approximately 45 years and has been provided wastewater service during that time. Although the proposed Project expands the size of the existing pool structure, the proposed Project would not produce wastewater atypical of flows received at the LACSD's JWPCP previously received from the project site. As discussed below under Thresholds 4.13.2 and 4.13.5, wastewater generated by the proposed Project would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities; and would not result in a determination by the wastewater treatment provider that they have inadequate capacity to serve the Project's projected demand in addition to existing commitments. Therefore, since the capacity of the treatment facility that serves the Project site would not be exceeded with project implementation, no impacts regarding the ability of the treatment facility to treat and dispose of wastewater would occur from Project implementation. Thus, Project impacts related to exceeding wastewater treatment requirements of the applicable RWQCB are considered less than significant, and no mitigation is required.

Threshold 4.13.2: **Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

or

Threshold 4.13.4: **Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements?**

Note: This section discusses the potential Project impacts related to water supplies and facilities. Wastewater generation facilities are discussed under the following thresholds: Thresholds 4.13.2 and 4.13.5.

Less than Significant Impact. The Project includes the construction and operation of new Belmont Pool facilities that would include 125,500 sf of new building space for the Belmont Pool facilities (an increase of 79,905 sf as compared to the former Belmont Pool facilities); 18,610 sf of surface area for the indoor pool; 17,840 sf of surface area for the outdoor pool; 1,500 sf for the proposed outdoor cafe space; permanent indoor seating for 1,250 people; and temporary outdoor seating for up to 3,000 people. Proposed water service to the Project site would include a connection to an existing 6-inch line, which connects to an existing water main under East Olympic Plaza. No new off-site water mains or laterals would be required to serve the proposed Project. Project development would result in both short-term and long-term increases in water demand.

Construction. Construction of the proposed Project would involve grading, site preparation, and construction of the new pool complex. A short-term demand for water would occur during construction associated with excavation, grading, and other construction-related activities on the Project site. As the Project construction activities would occur in phases over an approximately 1 to 2-year period, construction activities would occur intermittently and would be temporary in nature. It is anticipated that the temporary demand for water supplies for soil watering (fugitive dust control), clean up, masonry, and other related activities would not result in water demand atypical of the size and scale of this construction project. Water for construction activities would be provided by water tank trucks with a typical capacity for construction activities. Water supply would be from the LBWD municipal supply. Overall, the Project's demolition and construction activities are not expected to have any adverse impacts on the existing water system or availability of water supplies. Therefore, impacts associated with short-term construction activities would be less than significant, and no mitigation is required.

Operation. The LBWD provided water services to the previous pool complex and pool facilities. As previously stated, proposed water service to the Project site would include a connection to an existing 6-inch asbestos cement (AC)¹ line that connects to an existing water main under East Olympic Plaza. No new off-site water mains or laterals would be required to serve the proposed Project.

The proposed Project would implement, replace, and improve the previous pool complex, resulting in an increase of 18,040 sf of surface water (from a previous surface area of 18,410 sf total to the proposed 36,450 sf) and an additional 79,905 sf of building area, each of which would require a periodic increase in water service/supply. Based on water use estimates obtained from CalEEMod, operation of the proposed Project is anticipated to result in a water demand of 38.23 af/year. As shown in Table 4.13.B, this is an increase of 18.62 af/year.

¹ Asbestos cement pipe was commonly used for pipes before asbestos was determined to be hazardous when airborne and does not pose any hazard as a result of water contact or transmission. However, in the event that new connections are required for the Proposed project, pipe material would consist of a different code-approved material such as copper or polyvinyl chloride.

Table 4.13.B: Proposed Project Water Demand

Use	Water Demand (acre feet per year)
Previous Belmont Pool Facilities	19.61
Proposed Project	38.23
Change in Water Demand	18.62

As discussed above, the City’s Urban Water Management Plan (UWMP) provides water demand projections in 5-year increments through 2035, which are based on demographic data from the SCAG’s 2008 Regional Transportation Plan, as well as billing data for each major customer class, weather, and conservation. The increase in water demand associated with the proposed Project represents approximately 0.027 percent of the LBWD water supply in 2015. Given that the proposed Project is not changing the land use on the Project site and the relatively small increase in water demand, it is anticipated that the increase in water demand attributable to the proposed Project would fall within the available and projected water supplies of the 2010 UWMP. The proposed Project would not necessitate new or expanded water entitlements or infrastructure as significant increases in water demands would not result from the proposed Project.

In addition, like all new development in California, the proposed Project would comply with California State law regarding water conservation measures, including pertinent provisions of Title 24 of the California Government Code (Title 24) regarding the use of water-efficient appliances. The proposed Project would also incorporate additional water conservation measures including, but not limited, to the following:

- Low-flow irrigation system with drip irrigation for shrub areas (90 percent efficiency)
- Rain sensors in conjunction with the automatic irrigation system
- Installation of mulch and/or soil amendments to help retain moisture
- Pool blankets
- Water-efficient plumbing fixtures
- Drought-tolerant landscaping

Furthermore, the proposed Project would be built to meet the standards associated with the Leadership in Energy and Environmental Design (LEED) Gold rating, which includes features that would greatly enhance water conservation (see Section 3.0, Project Description).

Therefore, because it is anticipated that the increase in water demand attributable to the proposed Project would fall within the available and projected water supplies of the 2010 UWMP and the proposed Project would incorporate additional water conservation features, impacts associated with the long-term operation of the proposed Project would be less than significant, and no mitigation is required.

Fire Flow. Fire flow requirements are based on building types and floor area and range from 1,250 to 8,000 gpm at 20 psi. In order to comply with the requirements of the LBFD, the proposed Project would be required to implement the minimum requirements for fire flow. Prior to the issuance of building permits, the approval of final building design, including all fire prevention and suppression systems, by the LBFD is required. Approval of the final building design would ensure that development is constructed pursuant to California Fire Code (CFC) requirements. Adequate fire flow is an integral part of the proposed Project's final building design. Thus, adequate fire flow would be assured through LBFD review of the final building design. With the payment of fees pursuant to Chapter 18.23 of the Fire Code and the implementation of applicable building code requirements in accordance with the CFC, including fire flow requirements, the LBFD would be able to maintain acceptable performance ratios and fire flow requirements without requiring a new fire protection facility or expansion to the existing fire protection facility. Potential impacts related to fire flow would be less than significant, and no mitigation is required.

Threshold 4.13.2: **Would the project require or result in the construction of new water or wastewater treatment or collection facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

or

Threshold 4.13.5: **Would the project result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve projected demand in addition to the provider's existing commitments?**

Note: This section discusses wastewater generation and facilities. Water supplies and facilities are discussed under the previous threshold: Thresholds 4.13.2 and 4.13.5.

Less than Significant Impact. Wastewater (sewer) collection for the Project site would be provided by LBWD, and the JWPCP would provide treatment of wastewater generated by the proposed Project. The Project site has an existing 6-inch vitrified clay pipe (VCP) that ran along the east and west side of the previous building. There were six connections to the 8-inch VCP sewer main located under East Olympic Plaza. The proposed Project would utilize the existing connections to the sewer main, and no new off-site sewer lines or laterals would be required to serve the proposed Project.

Construction. No significant increase in wastewater flows is anticipated as a result of construction activities on the Project site. Sanitary services during construction would likely be provided by portable toilet facilities, which transport waste off site for treatment and disposal. As discussed above under Threshold 4.13.1, if dewatered groundwater cannot be disposed of in the storm drain system, a permit would be obtained from LACSD to dispose of the groundwater to the sewer system. Groundwater dewatering activities would be temporary, and the volume of groundwater removed would not be substantial. In addition, LACSD would ensure they have adequate capacity to accommodate the discharged groundwater prior to issuing a permit.

Therefore, during construction, potential impacts to wastewater treatment and wastewater conveyance infrastructure would be less than significant, and no mitigation is required.

Operation. Utilizing the LACSD wastewater generation factor of 600 gpd per 1,000 sf for a gymnasium with shower/locker room and public restroom facilities and a generation factor of 1,000 gpd per 1,000 sf for restaurant uses, it was determined that the previous uses on the Project site generated approximately 30,756 gpd of wastewater. The proposed Project facilities would include approximately 127,600¹ sf (including the restaurant use), which would generate approximately 77,160 gpd of wastewater. See Table 4.13.C for the previous and proposed wastewater generation.

Table 4.13.C: Wastewater Generation

	Area (sf)	Flow Coefficient	Projected Daily Wastewater Generation (gpd)
Previous Total Daily Wastewater Generation	51,260 sf	600 gpd/1,000 sf for gymnasium with shower/locker room facilities 1,000 gpd/1,000 sf for restaurant uses	30,756
Proposed Total Daily Wastewater Generation	127,600	600 gpd/1,000 sf for gymnasium with shower/locker room facilities and public restroom facilities 1,000 gpd/1,000 sf for restaurant uses	77,160
Change in Wastewater Generation			+46,404

Source: Los Angeles County Sanitation District Average Wastewater Generation Factors. Table 1, Loadings for Each Class of Land Use.

gpd = gallons per day

sf = square feet

Wastewater Conveyance. As described above, sanitary sewer lines run along the perimeter of the Project site and include two 6-inch VCP along the east and west sides of the former building. There were six connections to the 8-inch VCP sewer main located under East Olympic Plaza. During construction, sewer service to the property to the north of the Project site would be maintained as required by LBWD. No new off-site sewer lines or laterals would be required to serve the proposed Project.

Local collector and/or lateral sewer lines are the responsibility of the jurisdiction in which they are located. The existing sewer lines to which the Project site currently connects are owned and maintained by the City. Before the Department of Development Services issues building permits, the LBWD must confirm that the City's Tidelands Capital Improvement Division has conducted a sewer capacity study substantiating that there is adequate sewer capacity available to accommodate flows from the proposed Project. In addition, the LBWD would require the approval of a sewer connection permit to allow connections to existing laterals. In the event that wastewater lines are found to contain insufficient capacity, be substandard, or in deteriorated

¹ The proposed Project facilities include 125,500 sf in building space + 600 sf in public restroom space + 1,500 sf in outdoor cafe use.

condition during the permitting and development process, a larger sewer line or a secondary sewer line would be necessary to connect to the nearest larger sewer line with sufficient capacity. Should larger or additional lines be required at a future date, the City's Tidelands Capital Improvement Division would be required by City regulations to make necessary improvements to achieve adequate service in consultation with the LBWD. The design of the proposed on-site wastewater lines, as well as any necessary wastewater line improvements, would be developed by a registered engineer and approved by the LBWD. As a result, the issuance of all applicable building permits would ensure that adequate sewer capacity is available prior to the start of construction.

As described above, wastewater originating at the Project site is conveyed by City sewer lines to either the LACSD's Anaheim Street Trunk Sewer located in 11th Street at Orange Avenue or the LACSD's Joint Outfall C Unit Trunk Sewer, located in 11th Street at Belmont Avenue. The 36-inch diameter Anaheim Street Trunk Sewer has a design capacity of 19.7 mgd and conveyed a peak flow of 5.7 mgd when last measured in 2012. The 51-inch diameter Joint Outfall C Unit Trunk Sewer has a design capacity of 29.2 mgd and conveyed a peak flow of 12.2 mgd, when last measured in 2012.¹ The anticipated increase in daily wastewater flow from the proposed Project would require approximately 0.33 percent of the existing available design capacity of the Anaheim Street Trunk Sewer and 0.27 percent of the existing available design capacity Joint Outfall C Unit Trunk Sewer. Therefore, both trunk sewers would have sufficient capacity to accommodate anticipated wastewater flows from the proposed Project.

As such, the proposed Project is not anticipated to cause a substantial increase in wastewater flows at a point where, and a time when, a sewer's capacity is already constrained or that would cause a sewer's capacity to become constrained. Impacts upon the local wastewater infrastructure system would, therefore, be considered less than significant, and no mitigation is required.

Wastewater Treatment. According to LACSD, it is anticipated that wastewater from the Project site would be treated at the JWPCP located in the City of Carson, which has a design capacity of 400 mgd and currently treats on average a wastewater flow of 280 mgd. The anticipated increase in daily wastewater flow that would result from Project implementation would represent .06 percent of the anticipated available daily capacity of the JWPCP. Therefore, the anticipated increase in daily wastewater flow from the proposed Project could be accommodated within the existing design capacity of the JWPCP. The proposed Project would not substantially or incrementally exceed the current or future scheduled capacity of the JWPCP by generating flows greater than those anticipated.

In addition, the projected wastewater flow calculations for the proposed Project do not account for the implementation of water conservation measures proposed by the City, which would further reduce wastewater flows beyond the projections noted above. Potential Project impacts related to wastewater treatment would be less than significant, and no mitigation is required.

¹ LACSD. Letter dated May 6, 2014.

Threshold 4.13.3: Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less than Significant with Mitigation Incorporated. The Project includes the construction of new Belmont Pool facilities on the Project site. Operation of the former Belmont Pool facilities mostly generated onsite surface runoff with little to no surface flow entering the Project site from other areas. As stated previously, the existing storm drain system that served the former Belmont Pool facilities consists of a 12-inch reinforced concrete pipe (RCP) that runs under Olympic Plaza Drive, then connects to an 18-inch RCP that finally transitions to a 24-inch RCP in Bennett Drive flowing northeast. The majority of the Project site sheet flows into Olympic Plaza Drive or one of the adjacent parking lots to the west or east of the Project site. A 10-inch storm drain runs from the former swimming pool and connects to the 12-inch storm drain in Olympic Plaza Drive, as well as several other down drains from the building.

The capacity of the downstream storm drain network is dependent on peak discharge rates entering the system. As discussed in Section 4.8, Hydrology and Water Quality, in the existing condition, the Project site consists of 4.3 ac of impervious surface area (74 percent of the site) and 1.5 ac of pervious surface. The proposed Project would result in a permanent decrease in impervious surface area of 0.5 ac and 0.5 ac in pervious area. As a result, in the proposed condition, the Project site would consist of 1.6 ac of impervious surface area and 4.2 ac of pervious surface. A decrease in impervious area would decrease the volume of runoff during a storm. The proposed Project would also include a comprehensive drainage system to convey on-site storm flows, including on-site detention and infiltration systems. A detailed hydrology report would be prepared for the proposed Project to ensure that the on-site storm drain facilities are designed in accordance with the requirement of the Los Angeles County Department of Public Works Hydrology Manual to ensure that the runoff from the project site does not exceed existing conditions (refer to Mitigation Measure 4.8.4). With implementation of Mitigation Measure 4.8.4, runoff from the Project site would not exceed the capacity of the existing storm water drainage system and the proposed Project would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Therefore, impacts related to new or expanded storm water facilities would be less than significant with implementation of Mitigation Measure 4.8.4.

Threshold 4.13.6: Would the project be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?

or

Threshold 4.13.7: Would the project not be in compliance with federal, State, and local statutes and regulations related to solid waste?

Less than Significant Impact. The former Belmont Pool facilities were demolished in February 2015. The proposed Project includes construction of new Belmont Pool facilities. For the purpose of this analysis, it is assumed that construction and operational solid waste would be disposed of at the SERRF because it is the closest active solid waste facility to the Project site. Any solid waste considered unprocessable to the SERRF (i.e., would damage or threaten to damage combustion units

or otherwise adversely affect maintenance of SERRF, present a substantial endangerment to the health or safety of the public or SERRF employees, cause any permit requirement or condition to be violated, or exceed the materials handling capacity of the combustion feed system¹) would be taken to landfills in Orange, San Bernardino and Riverside Counties.

Construction. The former Belmont Pool facilities were demolished in February 2015. The proposed Project includes construction of new Belmont Pool facilities. Construction of the new Belmont Pool facilities would generate C&D waste, including, but not limited to, soil, wood, asphalt, concrete, paper, glass, plastic, metals, and cardboard. The total amount of construction and demolition of waste that would be generated by the proposed Project has not been determined; however, the Project is required to comply with the City's 2007 Ordinance requiring that at least 60 percent of construction and demolition waste be recycled. In order to comply with the City's Ordinance, the City would implement a Construction & Demolition Debris Recycling Program. In accordance with the C&D Debris Recycling program, a Waste Management Plan (WMP) must be completed. The WMP would detail how the Project will meet the requirement to divert 60 percent of construction and demolition waste through recycling, salvage, or deconstruction. At the conclusion of the Project, a final report detailing the amount of reuse, recycling, and disposal actually generated from the proposed Project must be submitted and approved by the City's Development Services Department.²

The Solid Waste Facility Permit from the County Solid Waste Management Program for the SERRF authorizes the disposal of a maximum of 2,240 tons per day. Currently, the SERRF accepts approximately 1,320 tons per day. It is expected that the SERRF would continue to operate at current permitted daily capacity during the planning period of 2012 through 2027.³ Construction of the proposed Project is anticipated to commence in 2017 and be completed within approximately 18 months. Therefore, solid waste generated by construction of the proposed Project would be served by SERRF, which currently has sufficient permitted capacity. Solid waste generated during construction of the proposed Project would not result in significant impacts related to landfill capacity or prevent compliance with federal, State, and local statutes and regulations related to solid waste. Therefore, impacts related to short-term construction and demolition waste would be less than significant, and no mitigation is required.

Operation. The Project site was previously developed with the former Belmont Pool facilities. Based on CalEEMod, it was determined that the former Belmont Pool facilities generated approximately 1 ton of solid waste per day. The proposed Project would include construction of approximately 79,905 sf of new Belmont Pool facilities for recreational use and a 1, 500 sf restaurant use. Upon completion of the Project, the new expanded pool complex would result in an increase in capacity and usage that would generate additional solid waste. The volume of solid

¹ LBGO. Acceptable Waste. Website: http://www.longbeach.gov/lbgo/serrf/acceptable_waste.asp, (accessed September 26, 2013).

² City of Long Beach, Construction and Demolition Ordinance. Website: <http://www.lbds.info/civica/filebank/blobload.asp?BlobID=2529> (accessed June 9, 2014).

³ LADPW. Environmental Programs Division. *Countywide Integrated Waste Management Plan, 2012 Annual Report August 2013*. Website: <http://dpw.lacounty.gov/epd/swims/docs/pdf/CIWMP/2012.pdf> (accessed January 22, 2015).

waste that would be generated by the proposed Project was calculated using CalEEMod. The total solid waste that would be generated during Project operation was estimated at 2.01 tons per day, which is an increase of 1.01 tons per day.

The Solid Waste Facility Permit from the County of Los Angeles Solid Waste Management Program for the SERRF authorizes the disposal of a maximum of 2,240 tons of waste per day.¹ Currently, the SERRF accepts approximately 1,290 tons of waste per day.² The anticipated increase in solid waste disposal attributable to the proposed Project would require 0.11 percent of the available daily disposal capacity at SERRF. The Mesquite Landfill is authorized to accept approximately 20,000 tons of waste per day.³ The anticipated increase in solid waste disposal attributable to the proposed Project would require 0.005 percent of the available daily disposal capacity at the Mesquite Landfill. Therefore, both SERRF and the Mesquite Landfill have adequate capacity to serve the proposed Project, and impacts related to operational solid waste would be less than significant. No mitigation is required.

Compliance with Federal, State, and Local Statutes and Regulations related to Solid Waste.

The City has extensive recycling programs, which include refuse management programs within its source reduction, composting, special waste materials, transformation, policy incentives, facility recovery, and public education components that help reduce the amount of trash sent to landfills (including the SERRF). The City also enacted an ordinance in 2007 that requires certain construction and demolition projects to recycle at least 60 percent of waste generated. These efforts have given the City one of the highest waste diversion rates in the nation.

Waste diversion for the proposed Project is anticipated to be consistent with other similar development within the City and divert a high percentage of trash from landfills based on compliance with standard City practices and regulations. In addition, the City would be required to implement a C&D program during construction. The City's C&D Debris Recycling Program required at least 60 percent of C&D waste (e.g., concrete, metals, and asphalt) to be recycled.

Additionally, the proposed Project would include on-site recycling containers and adequate storage area for such containers. All containers and storage areas on the Project site would be sized in accordance with the applicable provisions in the LBMC, including Sections 8.60.025 and 8.60.020, which establish standards and guidelines regarding refuse and recycling receptacles. Based on these considerations, the proposed Project would be consistent with the State of California Solid Waste Reuse and Recycling Access Act of 1991.

¹ LADPW. Environmental Programs Division. *Countywide Integrated Waste Management Plan, 2012 Annual Report August 2013*. Website: <http://dpw.lacounty.gov/epd/swims/docs/pdf/CIWMP/2012.pdf> (accessed January 22, 2015).

² LACSD. *Southeast Recovery Facility (SERF) Brochure*. Website: <http://lacsdc.org/solidwaste/swfacilities/rtefac/serrf/brochure.asp> (accessed January 22, 2015).

³ LADPW. Environmental Programs Division. *Countywide Integrated Waste Management Plan, 2012 Annual Report August 2013*. Website: <http://dpw.lacounty.gov/epd/swims/docs/pdf/CIWMP/2012.pdf> (accessed January 22, 2015).

Threshold 4.13.8: **Would the project include a new or retrofitted storm water treatment control Best Management Practice (BMP), (e.g., water quality treatment basin, constructed treatment wetland), the operation of which could result in significant environmental effects (e.g., increased vectors and odors)?**

Less than Significant with Mitigation Incorporated. As discussed in Section 4.8, Hydrology and Water Quality, treatment BMPs are anticipated to include biofiltration swales (bioswales), filtration strip, an underground detention basin, and a drywell. Bioswales are vegetated channels that convey storm water and remove pollutants by filtration through the grass, sedimentation, adsorption to soil particles, and infiltration through the soil. Filtration strips are channels that convey storm water and remove pollutants by sedimentation and adsorption to soil particles, and infiltration through the soil. Detention basins are designed to reduce sediment and particulate loading in storm water runoff. Water is temporarily detained in the basin to allow sediment and particulates to settle out before the runoff is discharged to receiving waters. A drywell is an underground structure designed specifically for infiltration of stormwater.

BMPs would be designed in accordance with the *Low Impact Development (LID) Best Management Practices (BMP) Design Manual* requirements. Because the minimum length of time for mosquito development is 96 hours, the water quality features would be designed to drain within 72 hours or be sealed against mosquitos. In addition, as specified in Mitigation Measure 4.8.3, a SUSMP would be prepared for the proposed Project. The SUSMP would include an operations and maintenance plan for the bioswales, drywell, filtration strip, and an underground detention basin to ensure their long-term performance and prevent odor and vector issues from developing. The City would be responsible for all maintenance activities associated with the storm water BMPs. BMPs would be inspected periodically by a designated staff member, such as the facilities manager, to ensure they are functioning properly. Routine and periodic maintenance activities such as debris and sediment removal and vector control would be conducted by the City's landscape maintenance crew. Nonroutine maintenance such as major reconstruction or replacement would be handled by contractors with experience in constructing storm water BMPs. Because the BMPs would be designed, inspected, and maintained as specified in Mitigation Measure 4.8.3 to prevent vectors and odors, impacts related to operation of storm water BMPs would be reduced to a less than significant level.

Threshold 4.13.9: **Would the proposed project result in substantial adverse physical impacts associated with the provision of new or physically altered energy transmission facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable levels of service?**

Less than Significant Impact.

Electricity. The Project proposes the construction of a new Belmont Pool facility that would be approximately 126,100 sf in size in addition to a separate 1,500 sf outdoor cafe facility. The proposed Project is presently served by all utilities. New development on site would result in an increased building area of approximately 75,740 sf, and would create an increase in long-term demand for electricity. However, because the Project site is currently served by all utilities and

has operated with the same land use as proposed, no new off-site service lines or substations would be required to serve the proposed Project.

All new development is required to comply with State law regarding energy conservation measures, including pertinent provision of Title 24 of the California Government Code. Title 24 covers the use of energy-efficient building standards, including ventilation, insulation, construction, and the use of energy-saving appliances, conditioning systems, water heating, and lighting. In addition to the requirements of Title 24, the proposed Project would incorporate additional energy conservation measures including, but not limited to, the following: aquatic-specific variable frequency drives on pumps, high efficiency direct fire heating, underwater pool light-emitting diodes (LED) lights, day lighting, pool blankets.

As previously stated, the annual electrical demand of 421,344 kWh/yr associated with previous conditions on the Project site was calculated using CalEEMod. Upon completion of the new pool facilities, the proposed Project would result in an increase in capacity and usage that would require the use of approximately 895,215 kWh/yr, which would be an increase of 473,871 kWh/yr.

In May 2013, the CEC published preliminary California Energy Demands for the years 2014 through 2024.¹ According to the CEC, electricity consumption in the SCE service area is projected to reach between 107,929,000,000 kWh in the low-demand scenario and 118,193,000,000 kWh in the high-demand scenario in 2024. Based on CEC projections for the SCE service area in 2024, the anticipated increase in project-related annual electricity consumption would represent approximately 0.0004 percent of the forecasted net energy load. Based on these estimates, sufficient transmission and distribution capacity exists, and off-site improvements would not be necessary. Project-related on-site improvements would occur in a logical, efficient manner utilizing the most up-to-date design, construction, and operational methods available.

The supply and distribution of electricity to the proposed Project would not disrupt power to the surrounding area or adversely affect service levels because the Project involves the continuation of a previous land use. Therefore, impacts related to the provision of electricity services to the proposed Project would be less than significant, and the proposed Project would not require new or physically altered transmission facilities (other than those facilities needed for on-site distribution and hook-up into the existing system). Similarly, no significant impacts to local or regional supplies of electricity would occur as a result of the proposed Project, and no mitigation is necessary.

Natural Gas. The proposed Project is the reconstruction of a pool facility in an area presently served by all utilities. The proposed Project, which has a larger building area than the previous pool complex, would result in an increase in long-term demand for natural gas. Connections for natural gas would be located in a joint trench in order to connect to the existing service

¹ CEC. 2014-2014 Electricity Demand by Planning Area. Website: <http://www.energy.ca.gov/2013publications/CEC-200-2013-004/CEC-200-2013-004-V1-CMF.pdf>.

connections located in the northeastern portion of the Project site. No new off-site service lines or substations would be required to serve the proposed Project.

The proposed Project would generate an annual natural gas demand of 0.00229 bcf per year, which is an increase of 0.00133 bcf per year. According to the 2014 California Gas Report, the City's gas use is expected to remain constant, increasing from 9.0 bcf in 2014 to 9.6 bcf by 2035.¹ Therefore, the increase in annual natural gas demand associated with the proposed Project would be a negligible percent of the estimated available withdrawal capacity of the LBGO in 2035. Consequently, the supply and distribution of natural gas within the area surrounding the proposed Project would not be reduced or inhibited as a result of the proposed Project, and levels of service to off-site users would not be adversely affected. Furthermore, the proposed Project would reduce natural gas consumption through the installation of high-efficiency direct fire heating, and pool blankets. Therefore, impacts related to the provision of natural gas services to the proposed Project would be less than significant, and the proposed Project would not require new or physically altered transmission facilities (other than those facilities needed for on-site distribution and hook-up into the existing system). Similarly, no significant impacts to local or regional supplies of natural gas would occur as a result of the proposed Project, and no mitigation is required.

Consistency with Appendix F of the *State CEQA Guidelines*. CEQA requires that EIRs include a discussion of the potential energy impacts of a proposed Project to the extent relevant and applicable, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (refer to PRC 21100[b][3]). Appendix F of the *State CEQA Guidelines* is an advisory document that assists lead agencies in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. Not all items listed in Appendix F are applicable to every project; however, those items listed in Table 4.13.D are applicable and relevant to the proposed Project.

Compliance with Title 24 ensures that projects would preclude the inefficient, wasteful, and unnecessary consumption of energy.² As is the case with other uniform building codes, Title 24 is designed to provide certainty and uniformity throughout the State, while at the same time ensuring that the efficient and non-wasteful consumption of energy is ensured through design features. As indicated previously, the proposed Project's green features and LEED Gold design standards would result in the Project exceeding the California Building Energy Efficiency Standards contained in Title 24.

According to the CEC, reducing energy use has been a benefit to all. Building owners save money, Californians enjoy a more secure and healthy economy, the environment is less negatively impacted, and the electrical system can operate in a more stable state. The CEC staff estimates that the implementation of the 2013 Building Energy Efficiency Standards may reduce statewide annual

¹ Pacific Gas and Electric Company (PG&E). *2014 California Gas Report*, Website: file:///C:/Users/haskell/Downloads/cgr14.pdf.

² Tracy First vs. City of Tracy, No. C059227, 2009 DJDAR 13866. Filed August 27, 2009. Certified for publication in its entirety on September 18, 2009.

Table 4.13.D: Proposed Project Comparison to CEQA Guidelines Appendix F

Appendix F Items for Consideration	Proposed Project
1. The Project’s energy requirements and its energy use efficiencies by amount and fuel type for each stage of the Project’s life cycle including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed.	Operational energy use is discussed in Threshold 4.13.9. Energy use during construction would primarily involve gasoline and diesel and represents a short-term use of readily available, but nonrenewable fuels. The proposed Project would also include energy conservation features including, but not limited to, the following: installation of the following: aquatic-specific variable frequency drives on pumps, regenerative filtration system, LED pool lights, and pool blankets. Therefore, potential impacts would be less than significant, and no mitigation is required.
2. The effects of the Project on local and regional energy supplies and on requirements for additional capacity.	The proposed Project’s impact relative to regional energy supplies is discussed in Threshold 4.13.9. The proposed Project would exceed the California Building Energy Efficient Standards contained in Title 24. Potential impacts would be less than significant, and no mitigation is required.
3. The effects of the Project on peak and base period demands for electricity and other forms of energy.	The proposed Project’s impact relative to peak and base demands for electricity and other forms of energy is discussed in Threshold 4.13.9. The proposed Project would implement a variety of energy conservation measures and would exceed the California Building Energy Efficient Standards contained in Title 24. Potential impacts would be less than significant, and no mitigation is required.
4. The degree to which the Project complies with existing energy standards.	As discussed in Threshold 4.13.8, the proposed Project would implement a variety of energy conservation measures (i.e., installation of the following: aquatic-specific variable frequency drives on pumps, regenerative filtration system, LED pool lights, and pool blankets) and would exceed the California Building Energy Efficient Standards contained in Title 24. Potential impacts would be less than significant, and no mitigation is required.
5. The effects of the Project on energy resources.	As discussed in Threshold 4.13.9, the proposed Project would implement a variety of energy conservation measures (i.e., installation of the following: aquatic-specific variable frequency drives on pumps, regenerative filtration system, LED pool lights, and pool blankets) and would exceed the California Building Energy Efficient Standards contained in Title 24. Further, the energy demands of the proposed Project are within the delivery capabilities and projected loads for SCE and the LBGO. Potential impacts would be less than significant, and no mitigation is required.
6. The Project’s projected transportation energy use requirements and its overall use of efficient transportation alternatives.	The proposed Project would be located in an urban area currently served by public transportation. Transit service is provided within the Project vicinity by Long Beach Transit. It is anticipated that the existing transit service in the Project area would be able to accommodate Project-generated transit trips. A coastal bike trail exists adjacent to the Project site to serve as an alternative for vehicular transportation in the area. The proposed Project would include bike racks to provide connection with the existing trail to encourage the use of bicycles as a means of alternative transportation and to reduce vehicle trips to the Project site. All other potential impacts related to transportation and circulation would be reduced to a less than significant level through the implementation of mitigation identified in Section 4.12, Transportation and Circulation, of this EIR.

CEQA = California Environmental Quality Act
EIR = Environmental Impact Report
LBGO = Long Beach Gas and Oil Department
LED = light-emitting diodes
SCE = Southern California Edison

electricity consumption by approximately 281 gigawatt-hours per year (gwh/yr), electrical peak demand by 195,000 kWh, and natural gas consumption by 16 million therms (1.6 bcf) per year.¹

Based on the analysis in Threshold 4.13.9, the proposed Project would not result in the wasteful, inefficient, and unnecessary consumption of energy; would not cause the need for additional electrical energy or natural gas production facilities; and, therefore, would not create a significant impact on energy resources.

4.13.6 Cumulative Impacts

The proposed Project, in conjunction with other past, present, or reasonably foreseeable future projects, has the potential to contribute to a cumulative impact related to the demand for utilities. The cumulative study area for utility impacts consists of: (1) the area that could be affected by future proposed Project activities, and (2) the areas affected by other projects whose activities could directly or indirectly affect the utilities of the Project site within a service area.

Electricity. The geographic area for the cumulative analysis of impacts to the provision of electricity is the service territory of SCE. The CEC estimates that both the net peak demand and the net energy load within SCE's service territory will continue to grow annually by 1.4 percent and 1.2 percent, respectively.² Although the proposed Project has the potential to increase electrical demand in the area, SCE has identified adequate capacity to handle increase in electrical demand, and any increase in electrical demand resulting from the proposed Project would be incremental compared to an increase in regional electrical demand. Compliance with Title 24 of the California Administrative Code regulates energy consumption in new construction and regulates building energy consumption for heating, cooling, ventilation, water heating, and lighting for the proposed Project and all future projects. In addition, the proposed project would be designed to meet LEED Gold standards, including a number of energy-efficient measures such as variable frequency drives for pool pumps, high efficiency direct fire heating, LED pool lights, and pool blankets. Therefore, in relation to the cumulative study area, the Project's incremental contribution to increased demand for electricity would not be cumulatively considerable, and no mitigation is required.

Natural Gas. The geographic area for the cumulative analysis of impacts to the provision of natural gas is the service territory for the LBGO. According to the 2014 California Gas Report, the City's gas use is expected to remain constant, increasing from 9.0 bcf in 2014 to 9.6 bcf by 2035. The City's locally supplied deliveries are expected to decline from 0.4 bcf in 2014 to 0.1 bcf by 2035.³ Therefore, sufficient gas supplies and infrastructure capacity are available, or have already been planned, to serve past, present, and reasonably foreseeable projects. Further, similar to the proposed

¹ CEC. *2016 Building Energy Efficiency Standards for Residential and Nonresidential Buildings*. Website: <http://www.energy.ca.gov/2015publications/CEC-400-2015-037/CEC-400-2015-037-CMF.pdf> (accessed February 23, 2016).

² CEC. *California Energy Demand, 2010-2020 Adopted Forecast*. Website: <http://www.energy.ca.gov/2009publications/CEC-200-2009-012/CEC-200-2009-012-CMF.PDF> (accessed June 9, 2014).

³ PG&E. *2014 California Gas Report*. Website: <http://www.pge.com/pipeline/library/regulatory/downloads/cgr14.pdf> (accessed November 4, 2013).

Project, all future projects would be subject to Title 24 requirements and would be evaluated on a case-by-case basis to determine the need for specific distribution infrastructure improvements. As there is adequate capacity and additional development within LBGO's service area would comply with Title 24, the proposed Project's contribution to cumulative natural gas impacts would be considered less than significant.

Solid Waste. The geographic area for the cumulative analysis of impacts to solid waste disposal capacity is the County of Los Angeles. The proposed Project in combination with other past, present, and reasonably foreseeable projects within the County would create an increased demand on landfills and solid waste services for the County. The construction and operation of the proposed Project would be served by the SERRF, a refuse-to-energy waste facility with sufficient permitted capacity to accommodate the Project's solid waste disposal needs. Remaining capacity and estimated closure dates for the SERRF are not determined because the facility is a transformation facility that converts solid waste to energy and ash. It is expected that the SERRF will continue to operate at current permitted daily capacity during the planning period from 2012 through 2027. The SERRF currently does not exceed its daily maximum permitted disposal capacity. Solid waste considered unprocessable by SERRF would be taken to landfills in Orange, San Bernardino and Riverside Counties.

Therefore, the proposed Project would not have a significant Project-specific or cumulative impact on waste disposal capacity at County transformation facilities and landfills. In addition, the City complies with all federal, State, and local statutes and regulations related to solid waste, and no mitigation is required.

Wastewater. The geographic area for the cumulative analysis for wastewater treatment is defined as the City and the LACSD service territory. Within its service area, LACSD uses United States Census Bureau population information with population projections, as well as current land use and build out or zoned land use to project current and future wastewater flows. Because LACSD projects that its existing and planned wastewater treatment capacity would be sufficient to accommodate the growth forecasted by the United States Census within its service area, development that is generally consistent with this forecast can be adequately served by LACSD facilities. The proposed project would replace and improve the previous Belmont Pool Facilities; no change in land use is proposed. LACSD existing facilities have the capacity to accommodate past, present, and reasonably foreseeable projects. The proposed Project would not contribute wastewater that would exceed the service capacity of LACSD. Therefore, the proposed Project would not significantly contribute to or cause cumulative impacts to wastewater services, and no mitigation is required.

Water. The geographic area for the cumulative analysis of water infrastructure includes the Project site and the service territory of the City. According to the City's UWMP, the MWDSC's future water supplies are fairly reliable as documented in its 2010 Regional UWMP, because the MWDSC current allocation plan guarantees an amount of water close to the LBWD's need for water, and because the

LBWD has a preferential right to the MWDSC supplies in excess of its need for that water.¹ In addition, LBWD, which provides the groundwater supply to the City, projects that there are sufficient groundwater supplies to meet any future demand requirements in the City. Therefore, existing water systems have sufficient capacity to meet the additional maximum day and peak-hour domestic water demand and fire flow demand from the proposed Project and other proposed projects within the City's service territory through 2020. As such, the potential cumulative impacts from past, present, and reasonably foreseeable projects related to water supply within the City would be less than significant.

4.13.7 Level of Significance Prior to Mitigation

A detailed hydrology report would be prepared for the proposed Project to ensure runoff from the Project site would not exceed the capacity of the existing storm water drainage system and the proposed Project would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Similarly, a SUSMP would include an operations and maintenance plan for the bioswales, drywell, filtration strip, and an underground detention basin to ensure their long-term performance and prevent odor and vector issues from developing. All other potential impacts related to utilities would be less than significant, and no mitigation is required.

4.13.8 Mitigation Measures

Refer to Section 4.8, Hydrology and Water Quality, for mitigation related to surface and groundwater hydrology and quality.

4.13.9 Level of Significance after Mitigation

All potential impacts related to utilities would be less than significant with implementation of mitigation measures.

¹ LBWD. *2010 Long Beach Urban Water Management Plan*. Website: http://www.lbwater.org/sites/default/files/file_attach/pdf/2010_uwmp.pdf (accessed June 9, 2014).

5.0 ALTERNATIVES

5.1 INTRODUCTION

The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) include a discussion of reasonable project alternatives that would “feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives” (*State CEQA Guidelines*, Section 15126.6). This chapter identifies potential alternatives to the proposed Project and evaluates them, as required by CEQA.

Key provisions of the *State CEQA Guidelines* on alternatives (Section 15126.6(b) through (f)) are summarized below to explain the foundation and legal requirements for the alternatives analysis in the EIR:

- The discussion of alternatives shall focus on alternatives to the Project or its location that are capable of avoiding or substantially lessening any significant effects of the Project, even if these alternatives would impede to some degree the attainment of the Project objectives or would be more costly (15126.6(b)).
- The specific alternative of ‘no Project’ shall also be evaluated along with its impact (15126.6(e)(1)). The ‘no Project’ analysis shall discuss the existing conditions at the time the Notice of Preparation is published, and at the time the environmental analysis is commenced, as well as what would reasonably be expected to occur in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the ‘no Project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (15126.6(e)(2)).
- The range of alternatives required in an EIR is governed by the ‘rule of reason’ that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the Project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the Project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision-making. Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent) (15126.6(f)).

- For alternative locations, only locations that would avoid or substantially lessen any of the significant effects of the Project need be considered for inclusion in the EIR (15126.6(f)(2)(A)).
- If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reasons in the EIR. For example, in some cases there may be no feasible alternative locations for a geothermal plant or mining Project, which must be in close proximity to natural resources at a given location (15126.6(f)(2)(B)).
- An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative (15126.6(f)(3)).

Pursuant to the guidelines stated above, a range of alternatives to the proposed Project is considered and evaluated in this EIR. These alternatives were developed in the course of Project planning and environmental review. The discussion in this section provides the following:

- A description of the alternatives considered.
- Comparative analysis of each alternative that focuses on the potentially significant unavoidable environmental impacts of the proposed Project, e.g., global climate change. The purpose of this analysis is to determine whether alternatives are capable of eliminating or reducing the significant environmental impacts of the Project to a less than significant level.
- Conclusions regarding the alternative's: (1) ability to avoid or substantially lessen the significant unavoidable impacts of the Project; (2) ability to attain the Project objectives (as stated below); and (3) merits of each alternative compared to the merits of the proposed Project.

5.1.1 Project Objectives

The primary goal of the proposed Project is to replace the former Belmont Pool complex with a state-of-the-art aquatic facility to continue to serve as a recreational and competitive venue for the community, the City of Long Beach (City), the region, and the State. The specific objectives of the Project are to:

1. Redevelop the City-owned site of the former Belmont Pool with similar aquatic recreational purposes, consistent with the original ballot measure;
2. Replace the former Belmont Pool with a more modern facility that better meets the needs of the local community, region and State's recreational and competitive swimmers, divers, aquatic sports participants, and additional pool users due to the tremendous demand for these services in the local community, region and State;
3. Minimize the time period that the community is without a permanent recreation and competitive pool facility;
4. Provide a facility that supports recreation, training, and all competitive events for up to 4,250 spectators (1,250 permanent interior seats, up to 3,000 temporary exterior seats);

5. Increase programmable water space for recreational swimming to minimize scheduling conflicts with team practices and events;
6. Provide a signature design in a new pool complex that is distinctive, yet appropriate for its seaside location;
7. Accommodate swimming, diving, and water polo national/international events by reflecting current competitive standards, in accordance with FINA regulations;
8. Operate a pool facility that would generate revenue to help offset the ongoing operations and maintenance costs;
9. Implement the land use goals of Planned Development PD-2;
10. Provide a facility that maximizes sustainability and energy efficiency through the use of selected high performance materials;
11. Minimize view disruptions compared to the former Belmont Pool facility;
12. Maximize views to the ocean from inside the facility;
13. Locate the pool in an area that serves the existing users;
14. Design the passive open space with drought tolerant and/or native landscaping and include areas suitable for general community use; and
15. Maintain or increase the amount of open space compared to the former Belmont Pool facility.

5.1.2 Significant Unavoidable Impacts of the Proposed Project

As discussed in detail in Chapter 4.0, Environmental Setting, Impacts, and Mitigation Measures, the proposed Project would not result in significant, unavoidable, adverse impacts related to aesthetics, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazardous materials, hydrology and water quality, land use, noise, recreation, transportation and circulation, and utilities and service systems. For the purpose of this analysis, it is assumed that all of the alternatives would comply with applicable federal, State, and local regulations, policies, and ordinances. It is also assumed that all design features, standard conditions, and mitigation measures required to reduce impacts associated with Project implementation would also apply to the Project alternatives and that similar reductions in impacts would be achieved through such design features, standard conditions, and mitigation. As such, all applicable design features, standard conditions, and mitigation measures are listed within their respective topical environmental impacts discussion. Therefore, the following discussion focuses on the ability of the alternatives to further reduce Project impacts and the potential impacts of the Project alternatives related to these issues.

5.2 ALTERNATIVES INITIALLY CONSIDERED BUT REJECTED FROM FURTHER CONSIDERATION

Section 15126.6(c) of the *State CEQA Guidelines* requires EIRs to identify any alternatives that were considered by the lead agency but were rejected during the scoping process and

briefly explain the reasons underlying the lead agency's determination. In evaluating an appropriate range of alternatives to the proposed Project, a number of alternatives were considered and rejected for differing reasons by the City.

The alternatives considered and rejected for the proposed Project are described below.

5.2.1 Fully Enclosed Pools Alternative

The Fully Enclosed Pools Alternative assumes that all of the proposed pools would be enclosed by the Bubble structure. This alternative was considered because it would provide all visitors a controlled-climate swimming experience while simultaneously containing noise generated during aquatic activities in an attempt to reduce the potential for noise impacts on the surrounding neighborhoods.

A complex design that is able to enclose all the proposed pools was found to require a building footprint that encompasses a majority of the southern boundary of the Project site potentially blocking more scenic views than the former Belmont Pool. When considering the design of the structure required to enclose all the pools, the proposed Bubble structure of this alternative had the potential to substantially exceed the height, mass, and scale of the former Belmont pool complex. Although this alternative would replace the former Belmont Pool with a new pool facility, it was anticipated that the design of the building required to enclose all pools would substantially degrade the character of the site and have a substantially adverse effect on the scenic views of the coastline resulting in significant aesthetics impacts.

This alternative would include all operational characteristics and activities required to meet the recreational objectives for the Project. However, as described above, the scale and mass of the Bubble structure would likely lead to a significant aesthetic impacts, in conflict with the objective of minimizing view disruptions compared to the previous facility. Therefore, the Fully Enclosed Pools Alternative would not achieve the neighborhood compatibility desired by the objectives for the proposed Project. In addition, the increased structure size would require a longer construction period, additional construction materials, and increased demand for heating and cooling, thereby increasing potential air quality and Greenhouse Gas (GHG) emissions. Therefore, it was concluded that due to the potential increased GHG impacts, along with aesthetic impacts in conflict with the objectives for minimizing view disruptions, the Fully Enclosed Pools Alternative was rejected.

5.2.2 Alternative Project Locations

CEQA requires that the discussions of alternatives focus on alternatives to the Project or its location that is capable of avoiding or substantially lessening any significant impacts of the Project. The key question and first step in the decision whether to include in the Draft EIR an analysis of alternative sites is whether any of the significant impacts of the Project would be avoided or substantially lessened by relocating the Project. Only developments or locations that would avoid or substantially lessen any of the significant impacts of the Project need be considered for inclusion in the EIR (*State CEQA Guidelines*, Section 15126.6(f)(2)(A)). Further, *State CEQA Guidelines* Section 15126.6(f)(1) states that alternative locations only

need be considered if the Project proponent can reasonably acquire or already owns the identified alternative site. If it is determined that no feasible alternative locations exist, the EIR must disclose the reasons for this conclusion (*State CEQA Guidelines*, Section 15126.6(f)(2)(B)).

Three alternative locations for the proposed Project were considered during preparation of the Draft EIR. A discussion of each alternative site is included below.

Harry Bridges Memorial Park. The Harry Bridges Memorial Park is a 4.1-acre park located within the Tidelands on the Pier J waterfront at Queens Highway and Harbor Scenic Drive in the City of Long Beach. The site consists of turf, trees, and small facilities for outside events. The site was considered because it does not contain major structures and because of its location near existing public use areas such as the Queen Mary, the Long Beach Arena, and the Aquarium of the Pacific. However, the Harry Bridges Memorial Park was designated as part of the parkland mitigation for the development of the Aquarium of the Pacific and Rainbow Harbor to replace recreational open space in Shoreline Park funded under the Land and Water Conservation Fund (LWCF) Act. Under Section 6(f)(3) of the LWCF Act, the Harry Bridges Memorial Park may not be converted to uses other than public outdoor recreation uses. For this protection to include the proposed Project's enclosed areas as an allowable use, a required petition to the Secretary of the Interior would be required. The petition process with the Secretary of the Interior was considered prohibitive due to the extended time, cost, and uncertain outcome. Additionally, the Harry Bridges Memorial Park is 1.7 acres smaller than the proposed Project site and is not likely to be able to accommodate the required infrastructure for the proposed Project or be able to maintain or increase the amount of open space compared to the former Belmont pool facility (Objective 15). A smaller aquatic facility would also not meet the objectives related to provision of a facility that supports all competitive swimming events, and increased programmable space to minimize scheduling conflicts (Objectives 2, 4, 5, and 7). Currently, the site is used for special events booked through the Queen Mary and there is no public parking at the site. The lack of adequate dedicated parking would negatively impact the future use of the site for the pool facilities.

Due to the location, this site would not allow for summer aquatics camps to have access to the beach, sailing center, or pier facilities, activities, which occurred at the former facility and are planned to continue at the new facility. This alternative site would not be directly accessible for pedestrian and/or bicycle users, and would therefore not serve these existing users (Objective 13).

In addition, this site would not meet many of the other project objectives including: redevelopment of the City-owned site of the former Belmont Pool facility (Objective 1); Minimization of the time period that the community is without a permanent recreation and competitive pool facility (Objective 3); Implementation of the land use goals of Planned Development PD-2 (regulations specific to the Belmont Pool and Pier) at the former site (Objective 9); and provision of views to the ocean from inside the facility (Objective 12). Therefore, for the reasons stated above, the Harry Bridges Memorial Park was rejected as a potential alternative site and was not considered further.

Queen Mary Site. The Queen Mary Site encompasses 43-acres of land located on the Pier J waterfront at the terminus of Queens Highway in the City of Long Beach. The site features the 1936 Queen Mary ocean liner, which is permanently moored and operates as a hotel and event center. The site also includes the Queen Mary Events Park, Sea Walk Village, adjacent Carnival Cruise Lines terminal, and associated parking areas. This alternative site was considered because of its location near existing public use areas such as the Long Beach Arena and the Aquarium of the Pacific. However, the site is currently leased to a private operator and not under the City's control. The current lease expires in approximately 40 years, and therefore the site would not be available for the City's use without renegotiating the lease and paying for the use of the site. The length of the existing lease makes the site unavailable for years, which is in conflict with Objective 3, to minimize the time the public is without a permanent pool facility. Furthermore, the site already provides parking for the current uses (Queen Mary ocean liner, Queen Mary Events Park, Sea Walk Village, and the Carnival Cruise Lines terminal), and would require the need for additional parking for the proposed Project. Providing additional parking for this site would be a challenge due to the current uses already competing for adequate parking spaces.

In addition, the site location would not allow for summer aquatics camps to have access to beach, sailing center, or pier facilities at this site, activities which occurred at the former facility and are planned to continue at the new facility. Traffic volumes associated with Interstate-710 (I-710) and the Magnolia Avenue/Queensway Bay Bridge are greater than the street system surrounding the proposed Project site. As a result, impacts related to traffic, parking, and air quality impacts would be greater than the proposed Project. This would result in recreational uses and sensitive receptors (swimmers, spectators) being located closer to pollution sources, such as the Port of Long Beach and truck traffic in the vicinity of the port. Finally, the Queen Mary Site would not redevelop the City-owned site of the former Belmont Pool facility (Objective 1).

In addition to not meeting Objectives 1 and 3, this site would not meet the other project objectives including: implementation of the land use goals of Planned Development PD-2 (regulations specific to the Belmont Pool and Pier) at the former site (Objective 9); provision of views to the ocean from inside the facility (Objective 12); and would not be directly accessible for pedestrian and/or bicycle users, therefore not serve these existing users (Objective 13). For the reasons stated above, the Queen Mary site was rejected as a potential alternative site and was not considered further.

“Elephant Lot” at the Long Beach Convention Center. The “Elephant Lot” is an approximately 13-acre surface parking lot on the east side of the Long Beach Convention Center (LBCC). The site is bound by East Seaside Way to the north, East Shoreline Drive to the south and east, and convention center facilities to the west. The site was considered because of its location in the Downtown area and proximity to existing public use areas, such as the LBCC, the Long Beach Arena and the Aquarium of the Pacific. However, Jehovah's Witness currently leases this parking lot site to accommodate parking demands during the annual convention at the LBCC. The lease expires in 2030 and requires 3,000 parking spaces

in two different lots, currently the “Elephant Lot” provides over half of these parking spaces (1,915 spaces). Due to the existing lease, this alternative site is in conflict with Objective 3, to minimize the time the public is without a permanent pool facility. Further, any loss of parking for Jehovah’s Witness or the LBCC would require additional mitigation. Special events, such as the annual Grand Prix of Long Beach, also use the parking lot for events and staging. This alternative site would not represent the highest and best land use for the area adjacent to the convention center, which should be reserved for convention or hotel uses.

Although the proposed pool facility would be compatible with the scale and character of the Downtown area, the unique architecture of the proposed facility would compete with the LBCC and aquarium buildings, and, therefore, the proposed facility would no longer stand out as a signature design as it would at the proposed Project site (Objective 6).

In addition to not meeting Objectives 3 and 6, this site would not meet the other project objectives including: implementation of the land use goals of Planned Development PD-2 (regulations specific to the Belmont Pool and Pier) at the former site (Objective 9); provision of views to the ocean from inside the facility (Objective 12); and would not be directly accessible for pedestrian and/or bicycle users, therefore not serve these existing users (Objective 13). In addition, this implementation of the proposed Project on this alternative site would require a Local Coastal Program amendment, which would not be required at the Project site. For the reasons stated above, the “Elephant Lot” site was rejected as a potential alternative site and was not considered further.

Conclusion. For the reasons detailed above, none of the three alternative sites were deemed feasible and are therefore not analyzed further in the Draft EIR. The proposed Project involves replacement of the former Belmont Pool complex on the subject property, which has a notable aquatic history associated with the location. In November 1961, the Long Beach City Council voted to place an item on the February 1962 municipal election for the use of Tidelands funds for the construction of the “Belmont Plaza Beach Center” (now Belmont Plaza) project, which included a swimming pool, wading pool, and public parking lot. Proposition 7 was approved by the voters in February 1962, and the City Council ratified the election results in March 1962, paving the way for site acquisition and eventual construction.

In January 1967, plans were approved for a group of structures at Belmont Plaza, a site west of the Belmont Pier on the beach in Belmont Shore. The Belmont Pool opened in 1968 in time for the United States (U.S.) Olympic swimming trials. The facility hosted both the 1968 and the 1976 U.S. Olympic swimming trials, as well as the 1974 and 1978 National Collegiate Athletic Association (NCAA) swimming championships. Mark Spitz, Don Schollander, and Charles Hickox set men’s records during these trials. After the trials, the pool was opened to the public for recreational purposes.

The designated property consists of both “Open Space and Parks” and “Mixed Uses” land use designations and is within the Park (P) and Belmont Pier Planned Development District (PD-2, Subarea 1) zoning areas, which allows for the previous and proposed recreational uses. Moreover, all impacts of the proposed Project would be less than significant after mitigation. Relocating the Project to an alternative location would not avoid or reduce any of

the potentially significant impacts of the proposed Project. Because the former Belmont Pool complex has been in operation on the Project site for the last 47 years, placing the facilities on another site would not meet several of the project objectives, as outlined above.

Additionally, funding for the proposed Project is entirely sourced from the Tidelands Operating Fund, an umbrella fund that allocates expenditures for tidelands operations and capital improvements projects within the tidelands area of the City. Tidelands are defined as those lands and water areas along the coast of the Pacific Ocean seaward of the ordinary high tide line to a distance of 3 miles. The Tidelands Trust not only restricts the use of the tidelands, but also restricts the use of income and revenue generated from businesses and activities conducted on the tidelands to be used solely for projects within the tidelands area. Because the proposed Project is dependent on funding from the Tidelands Operating Fund, any alternative location not in the tidelands would have to be funded through alternative sources. Due to a lack of available finances from other City sources, a project that would not be funded by the Tidelands Operating Fund would not be economically infeasible. Therefore, all three alternative sites were located in the tidelands. Additionally, according to the City, no other properties within the City's Tidelands would be large enough or are currently available to be considered as an alternative location. Therefore, the EIR does not include analysis regarding alternative locations.

5.3 ALTERNATIVES UNDER CONSIDERATION

Section 21100 of the Public Resources Code (PRC) and Section 15126.6 of the *State CEQA Guidelines* require an EIR to identify and discuss a No Project Alternative as well as a reasonable range of alternatives to a project that would feasibly attain most of the basic objectives of the project and would avoid or substantially lessen any of the significant environmental impacts. Based on the criteria listed above, the No Project Alternative and four project Alternatives have been selected to avoid or substantially lessen the significant impacts of the proposed Project. These alternatives include revisions to the proposed Project plans and reduced scale projects. The alternatives considered in this EIR include the following:

- **Alternative 1: No Project/No New Development.** This alternative would involve no changes to the existing land uses and conditions on the Project site. No new development on the Project site would occur. The temporary pool located in the parking area would continue to operate but no new pool facilities or open space would be constructed. The existing backfilled sand area where the previous building was located would remain unchanged.
- **Alternative 2: Maintain Temporary Pool with Ancillary Uses.** This alternative would involve improvements to construct a permanent foundation and permanent administrative and support facilities (lockers, restrooms, snack bar) consistent with the temporary pool configuration. The existing backfilled sand area would be removed and the open space park area would be expanded.
- **Alternative 3: Outdoor Diving Well.** This alternative would be similar to the proposed Project, but would locate the diving well outside the proposed enclosed pool facility. This alternative would require a revised site plan and would allow the building height to be

- reduced. All other components would be included in this alternative, allowing similar programming and events to occur at the site.
- **Alternative 4: Reduced Project - No Outdoor Components.** This alternative would eliminate the outdoor pool component and reduce the overall footprint of the pool structure. Open space and park areas would be increased under this alternative. Many of the facility amenities would remain, and the indoor pool components, would remain the same as the proposed Project. A height variance would still be required under this alternative because the diving well would still be located within the structure.
 - **Alternative 5: Reduced Project - No Diving Well and No Outdoor Components.** This alternative would be similar to Alternative 4, but would eliminate the indoor diving well component along with the outdoor pool facilities. This alternative would reduce the overall footprint and height of the pool structure, increasing open space and park areas. Although the diving well would not be included, a height variance would still be required under this alternative because the existing height limitation is 30’.

For each alternative, the analysis provides the following:

- Description of each alternative;
- Environmental analysis of the potential impacts of the alternative and the significance of those impacts (per the *State CEQA Guidelines*, significant effects of an alternative shall be discussed, but in less detail than those of the proposed Project);
- Overview of the potential impacts of the alternative and the significance of those impacts; and
- Summary comparison of the alternative relative to the proposed Project’s impacts, specifically addressing whether the alternative would meet the Project objectives, eliminate or reduce impacts as compared to the Project, and other comparative merits.

Table 5.A follows with a summary of each of the development alternatives.

5.4 ALTERNATIVE 1: NO PROJECT/NO NEW DEVELOPMENT

5.4.1 Description

Consistent with Section 15126.6(e) of the *State CEQA Guidelines*, the No Project/No Development Alternative is the existing condition of the Project site at the time the Notice of Preparation (NOP) was published, as well as what would be reasonably expected to occur in the foreseeable future if the Project were not approved. The setting of the site at the time the NOP was issued (April, 2014) is described throughout Section 4.0 of this EIR with respect to individual environmental issues and the baseline of the impact assessment of the proposed Project. At the time of the NOP, the Project site contained both the Belmont Pool facilities and the outdoor temporary pool (constructed in the Beach Parking Lot and opened in December 2013 in order to provide swimming facilities while the permanent facility is under construction). Although the site contained the former Belmont Pool building at the time the NOP was issued, the facility was subsequently demolished in February 2015 to alleviate an imminent public safety threat due to the seismically unsafe condition of the building.

Table 5.A: Summary of Development Alternatives

Alternative	Description	Basis for Selection and Summary Analysis
Proposed Project	<ul style="list-style-type: none"> • Approximately 5.8 ac. • Consistent with “Open Space and Parks” and “Mixed Uses” General Plan Land Use designations, and Park (P) and Belmont Pier Planned Development District (PD-2, Subarea 1) zoning designations. • Total new construction includes: 125,500 sf of new building space, 18,610 sf indoor pool surface area, 17,840 sf outdoor pool surface area, 55,745 sf passive park/landscaping 127,085 sf open space 1,250 permanent indoor seats, 3,000 temporary outdoor seats • Height variance required. 	<ul style="list-style-type: none"> • The proposed Project is consistent with land use and zoning designations. • Meets all of the Project objectives. • Refer to Chapters 3.0 and 4.0 of this Draft EIR.
Alternative 1: No Project/No New Development	<ul style="list-style-type: none"> • Approximately 5.8 ac. • Project site would retain land use and zoning designations. • Two outdoor pools (4,400 sf) and temporary pool (13,450 sf) would remain. • Former Belmont Pool building location would be vacant. • Passive park and on-site landscaping would remain. • No height variance required. 	<ul style="list-style-type: none"> • The No Project Alternative is required by CEQA. • Inconsistent with the majority of Project objectives.
Alternative 2: Maintain Temporary Pool with Ancillary Uses	<ul style="list-style-type: none"> • Approximately 5.8 ac. • Two outdoor pools (4,400 sf) and temporary pool (13,450 sf) would remain. • Temporary pool foundation would be constructed. • Permanent administrative and support facilities (lockers, restrooms, snack bar) would be constructed. • The existing backfilled sand area would be removed and passive park and on-site landscaping would be expanded. • Consistent with land use and zoning designations. 	<ul style="list-style-type: none"> • Enhances views since former pool facility would not be reconstructed. • Converts existing temporary pool to a permanent facility. • Retains 2 existing outdoor pools. • Adds supporting ancillary uses. • Increases amount of open space. • Substantial reduction in usable pool space compared to proposed Project. • Unable to provide adequate programmable space. • Meets some of the Project objectives; but is inconsistent with most objectives.
Alternative 3: Outdoor Diving Well Alternative	<ul style="list-style-type: none"> • Approximately 5.8 ac. • Consistent with “Open Space and Parks” and “Mixed Uses” General Plan Land Use designations, and Park (P) and Belmont Pier Planned Development District (PD-2, Subarea 1) zoning designations. • Building height would be reduced, but would still require a height variance. • Total new construction would be similar to the proposed project; increasing outdoor pool area while slightly reducing indoor pool area. 	<ul style="list-style-type: none"> • Reduces the height of the Bubble structure; height variance still required. • Land use and zoning designations are compatible with proposed uses. • Increased outdoor activity could result in increased noise impacts compared to the proposed Project. • Meets most of the Project objectives, but to a lesser degree than the proposed Project.

Table 5.A: Summary of Development Alternatives

Alternative	Description	Basis for Selection and Summary Analysis
Alternative 4: Reduced Project - No Outdoor Components	<ul style="list-style-type: none"> • Approximately 5.8 ac. • Consistent with “Open Space and Parks” and “Mixed Uses” General Plan Land Use designations, and Park (P) and Belmont Pier Planned Development District (PD-2, Subarea 1) zoning designations. • No reduction in the height of the building structure; height variance required. • Total new construction includes approximately 100,000 sf of new building space, 25,500 sf less than Proposed Project. • 18,610 sf indoor pool surface area. • 1,250 permanent indoor seating. 	<ul style="list-style-type: none"> • Equal or fewer physical environmental impacts as compared to the proposed Project due to the removal of the outdoor pool and reduction in square footage of proposed Project. • Land use and zoning designations are compatible with proposed uses. • Decreased noise impacts through elimination of outdoor pool component. • Substantial reduction in usable pool space compared to proposed Project. • Meets some of the Project objectives, but to a lesser degree than the proposed Project.
Alternative 5: Reduced Project - No Diving Well and No Outdoor Components	<ul style="list-style-type: none"> • Approximately 5.8 ac. • Consistent with “Open Space and Parks” and “Mixed Uses” General Plan Land Use designations, and Park (P) and Belmont Pier Planned Development District (PD-2, Subarea 1) zoning designations. • Building height would be reduced, but would still require a height variance. • Total new construction includes approximately 100,000 sf of new building space, 25,500 sf less than Proposed Project. • 14,290 sf indoor pool surface area. • 1,250 permanent indoor seating. 	<ul style="list-style-type: none"> • Equal or fewer physical environmental impacts as compared to the proposed Project due to the removal of the outdoor pool and reduction in square footage of proposed Project. • Reduces the height of the building; height variance still required. • Decreased noise impacts through elimination of outdoor pool component. • Land use and zoning designations are compatible with proposed uses. • Substantial reduction in usable pool space compared to proposed Project. • Meets some of the Project objectives, but to a lesser degree than the proposed Project.

Source: LSA Associates, Inc. (March 2016).
ac = acre(s)
CEQA = California Environmental Quality Act (CEQA)
EIR = Environmental Impact Report
sf = square feet

Therefore, the No Project Alternative will evaluate circumstances under which the Belmont Pool would no longer be present on site and includes the environmental condition for which no structures are rebuilt but where the temporary pool remains on the site until it reaches the end of its useful life.

5.4.2 Environmental Analysis

The No Project/No Development Alternative assumes that the on-site conditions, including the backfilled sand area where the former building stood, the existing open space areas, and

the temporary pool would remain unchanged except for the reasonably foreseeable pool and park maintenance activities. All required permits and standard conditions related to demolition were addressed in the emergency permit processed as a separate project. As this alternative would not include the construction or operation of a new pool facility, it would eliminate all construction activities and any increase in operations, resulting in reduced environmental impacts when compared to the proposed Project.

Existing views of and from the site and the visual character of the area would not be altered. No new air pollutant emissions or greenhouse gases (GHG) emissions would be generated by new visitors, and no short-term construction emissions would occur since no new construction is proposed. The existing vegetation and wildlife on site would not be disturbed compared with existing conditions. Unknown potential subsurface archaeological and paleontological resources would remain undisturbed. There would be no impacts related to geology, soils, or hazardous materials. No short-term construction noise impacts or new long-term operational noise impacts would occur to the surrounding area. The No Project/No Development Alternative would enhance views in comparison to the proposed Project because the site where the former Belmont Pool facility stood would remain vacant and no new structures would be constructed. No additional requirements for fire or police services would occur. No additional vehicle trips would be generated by the site, no new sources of solid waste would be created by this alternative, and no increase in demand for energy would occur as a result of development.

However, under the No Project/No Development Alternative, the temporary pool would remain in place and would continue to degrade until it reaches the end of its operational lifespan, increasing the maintenance costs associated with operation of the facilities. There would be no change to the proposed Project site with regard to the percentage of the site that would remain pervious or the volume of runoff during a storm event, and runoff treatment from best management practices (BMPs) that are included in the proposed Project would not be implemented, resulting in incrementally greater hydrology/water quality impacts as compared to the proposed Project. In addition, the land use goals of the PD-2 designation (regulations specific to the use of the site for the Belmont Pool and Pier) would not be implemented and therefore the No Project/No Development Alternative would be in conflict with the City's land use plans for the site and have greater land use impacts as compared to the proposed project. The foreseeable impacts of the No Project/No Development Alternative include the permanent loss of parking where the temporary pool is located, and the inadequacy of the temporary facilities to replace the former aquatic facilities and serve the community/public recreational needs. Therefore, the No Project alternative would have greater impacts to Recreation than the proposed project.

5.4.3 Attainment of Project Objectives

The No Project/No Development Alternative would only achieve two of the Project objectives; this alternative would minimize view disruptions and maintain the amount of open space compared to the former Belmont Pool facility because no new structures would be constructed on the site (Project Objectives 11 and 15). The temporary pool would remain on a site that serves the existing users, but to a much lesser extent than the proposed Project's ability to accommodate the community/public needs (Project Objective 13).

The previous aquatic facility would not be replaced/redeveloped with a more modern facility including a 4,250 spectator capacity that better meets the needs of the aquatics community (Project Objectives 1, 2, and 4). The No Project/No Development Alternative would not increase programmable water space to relieve overcrowding and accommodate swim, diving, and water polo national/ international events in a new pool complex that is distinctive in design, yet is compatible with the seaside neighborhood (Project Objectives 5, 6, and 7). Under the No Project/No Development Alternative, the City would not be able to operate a pool facility that would generate revenue to help offset the ongoing operation and maintenance costs (Objective 8). Because the No Project/No Development Alternative would not include the construction of a new pool facility or associated improvements, this alternative would not achieve the design oriented objectives of the proposed Project (Objectives 9, 10, 12, and 14). Additionally, because no development would occur under this alternative, the time that the community is without a state of the art recreation and competitive pool would be extended indefinitely and not minimized (Project Objective 3).

5.4.4 Conclusion

The No Project/No Development Alternative acknowledges the demolition of the previous seismically unsafe pool structure under an emergency permit as a separate project. Because this alternative would not provide the new outdoor pool components associated with the proposed Project, it would reduce potentially significant noise impacts. However, a majority of the Project objectives would not be achieved with the No Project/No Development Alternative, and none of the Project benefits would be realized.

5.5 ALTERNATIVE 2: MAINTAIN TEMPORARY POOL WITH ANCILLARY USES

5.5.1 Description

This alternative would include the conversion of the temporary pool (approximately 13,450 sf) into a permanent aquatic facility, and would retain the existing two outdoor pools (4,400 sf). Alternative 2 would include the construction of a permanent foundation for the pool along with construction of new administrative and support facilities (lockers, restrooms, snack bar). The site plan for this alternative would be consistent with the temporary pool configuration, with administrative and support facilities placed adjacent to the pool. The existing backfilled sand area would be removed and the park area would be expanded.

5.5.2 Environmental Analysis

Aesthetics. Alternative 2 would maintain the existing site configuration of the temporary pool, but would include the installation of a permanent foundation for the pool and associated facilities. The proposed Bubble structure would not be included in the design of Alternative 2. The absence of the Bubble structure would represent a substantial reduction in the overall footprint of the pool facility as compared to the proposed Project. This alternative would be substantially smaller in scale, and on- and off-site views of the Project site would be enhanced from the existing conditions because no new structures would be constructed on the

vacant former Belmont Pool site. Open space and park area would be substantially increased under this alternative because the existing backfilled sand area would be removed and the park area would be expanded. This alternative would, like the proposed Project, be required to comply with the City's lighting code. Under this alternative, potential aesthetic impacts related to construction would be reduced compared to impacts under the proposed Project because construction activities would be reduced. Similar to the proposed Project, visual impacts associated with Alternative 2 would be considered less than significant. However, Alternative 2 would result in fewer aesthetics-related construction and operational impacts as compared to the proposed Project because the administrative facilities would be housed in a significantly smaller building

Air Quality. Similar to the proposed Project, Alternative 2 would have less than significant impacts related to air quality. Construction and operational emissions associated with Alternative 2 would be reduced since the amount of operational pool space would be reduced and fewer vehicle trips would be generated due to the reduced size of the alternative. Overall, air quality impacts would be incrementally reduced during construction when compared to the Project due to the substantial reduction in permanent structures that would be constructed on the Project site. Similar to the proposed Project, Alternative 2 would not exceed significance thresholds for criteria pollutants with implementation of mitigation and standard South Coast Air Quality Management District (SCAQMD) measures. Operational impacts would be reduced due to the reduced amount of pool square footage. Overall, there would be fewer air quality emissions; therefore, Alternative 2 would result in fewer air quality impacts than the proposed Project.

Biological Resources. Similar to the proposed Project, Alternative 2 would have less than significant impacts related to biological resources. Unlike the proposed Project, Alternative 2 would not include the removal of existing vegetation on the Project site to create the open space and park areas. Rather, the existing backfilled sand area would be removed and the park area would be expanded without the need for tree removal. Therefore, unlike the proposed Project, implementation of Alternative 2 would not require mitigation to reduce potential impacts associated with the removal of on-site ornamental landscaping and associated nesting bird species during the breeding season. This alternative would implement a landscape plan similar to the proposed Project but with more open space. Overall, biological impacts associated with Alternative 2 are considered to be less than those identified for the proposed Project.

Cultural and Paleontological Resources. Similar to the proposed Project, Alternative 2 would not significantly impact known cultural resources. No archaeological or historical resources are known to exist at the Project site. However, a sensitive geologic formation, Young Alluvial Floodplain Deposits, have the potential to be encountered at approximately 23 feet (ft) below grade. Similar to the proposed Project, Alternative 2 would involve some excavation and construction activities and would be required to adhere to mitigation to protect any unknown archaeological or paleontological resources. Therefore, this alternative's impacts to cultural resources would be similar to the proposed Project.

Geology and Soils. Similar to the proposed Project, Alternative 2 would have less than significant impacts related to geology and soils with implementation of mitigation and adherence to the recommendations of the geology study and additional testing for corrosive soils. Construction and excavation activities associated with implementation of this alternative would be reduced as compared to those associated with the proposed Project; therefore, impacts to geology and soils would be fewer but similar. Geology and soils impacts associated with Alternative 2 are, therefore, considered to be similar to the proposed Project.

Global Climate Change. Similar to the proposed Project, Alternative 2 would have less than significant impacts related to GHG emissions and global climate change. Overall, GHG emissions would be incrementally reduced during construction when compared to the proposed Project due to the reduced amount of building construction. Operational emissions would also be reduced with the reduced amount of square footage and fewer vehicle trips. Overall, there would be fewer GHG emissions; therefore, Alternative 2 would have fewer GHG impacts as compared to the proposed Project.

Hazards and Hazardous Materials. Similar to the proposed Project, Alternative 2 would have less than significant impacts related to hazards and hazardous materials. Although there would be reduced construction required for this alternative, Alternative 2 would still be required to implement mitigation measures to reduce impacts associated with regulations for handling hazardous materials during construction activities. Neither the proposed Project nor Alternative 2 would result in significant adverse impacts related to hazardous materials during Project operations. Overall, impacts related to hazardous materials are considered the same for Alternative 2 as for the proposed Project.

Hydrology and Water Quality. Similar to the proposed Project, construction of Alternative 2 could potentially impact water quality related to erosion and pollutants. However, compliance with regulatory requirements and mitigation would ensure these impacts would be less than significant. Water quality impacts associated with construction would be similar, although reduced for this alternative, because the ancillary structures to be constructed would be significantly reduced as compared to the proposed Project. Additionally, Alternative 2 would not include the Bubble structure and, therefore, would have a substantially reduced building square footage and amount of impervious surfaces, resulting in less runoff than the proposed Project. With compliance with regulatory requirements, operational impacts would be less than significant for this alternative, similar to the proposed Project. Overall, impacts related to hydrology for Alternative 2 would be less than for the proposed Project.

Land Use. Unlike the proposed Project, Alternative 2 would not include the construction of the Bubble structure or any other buildings to house pool facilities, and, therefore, a variance for the exceedance of the 30-foot height limit would not be required. Under this alternative, as well as the proposed Project, there would be no impacts related to the division of an

existing community. Similar to the proposed Project, Alternative 2 would be consistent with the policies contained in the City's General Plan and the Southern California Association of Government's (SCAG) Regional Comprehensive Plan. Overall, similar to the proposed Project, Alternative 2 would not conflict with adjacent land uses and would be consistent with applicable goals and policies from the City's General Plan, and the City's Zoning Code. However, unlike the proposed Project, Alternative 2 would include the permanent loss of approximately 135 parking spaces where the temporary pool would be made permanent in the western part of the Beach Parking Lot. This permanent loss of parking would have the potential to violate the provisions of the California Coastal Act of 1976 and the Local Coastal Program if it is interpreted that this parking loss would decrease public access to the coast. Therefore, impacts related to land use for Alternative 2 are considered incrementally greater than the proposed Project.

Noise. Similar to the proposed Project, Alternative 2 would have less than significant impacts related to noise. However, Alternative 2 would reduce the duration of the construction activities and would, therefore, result in reduced construction-related noise impacts.

Alternative 2 would convert the temporary pool to a permanent facility, with seating and outdoor speakers. Crowd noise and whistles from aquatic events would occur, similar to existing conditions, under this alternative. This alternative would not include any indoor facilities, and the noise generated from outdoor aquatic events would be similar to the existing temporary pool and the outdoor facilities under the proposed Project. Neither the proposed Project nor Alternative 2 would result in significant adverse impacts related to noise during construction or Project operations. Therefore, Alternative 2 would result in similar operational noise impacts as compared to the proposed Project.

Recreation. Under both the proposed Project and Alternative 2, access to the Belmont Veteran's Memorial Pier, parking lots, beach areas, and the pedestrian/bicycle path may be subject to disruption during construction activities. However, both alternatives would include implementation of mitigation requiring a Construction Traffic Management Plan. Therefore, construction activities are expected to have less than significant impacts on access to the surrounding off-site recreational facilities for both the proposed Project and this alternative.

Alternative 2, similar to the proposed Project, would not result in an increased demand for recreational facilities but could require development or expansion of additional recreational facilities in order to meet the needs of the competitive swimming, diving, and water polo communities. Neither this alternative nor the proposed Project changes the Project site's intended and designated use for recreational purposes. Although no significant and unavoidable recreational impacts are identified for either scenario, Alternative 2 would include a total pool surface area of 17,850 sf, 560 sf less than the surface water area of the former Belmont Pool facility. Without any increase in the pool surface area from the former Belmont pool, recreational and competitive activities could not occur simultaneously, and the demand for programming competitive swimmers, divers, and aquatic sports participants would not be met. Therefore, operational recreational impacts are considered greater than the proposed project for this alternative.

Transportation and Circulation. Under both the proposed Project and Alternative 2, potentially significant impacts related to construction traffic and special event traffic could occur. However, both alternatives would include implementation of mitigation requiring an Event Traffic Management Plan for special events, and a Construction Traffic Management Plan. Implementation of these traffic plans would ensure that less than significant traffic impacts would occur for both the proposed Project and Alternative 2.

Construction and operational traffic associated with Alternative 2 would be reduced since the amount of operational pool space and temporary spectator seating would also be reduced resulting in fewer vehicle trips generated. Although no significant and unavoidable traffic impacts are identified for either scenario, because Alternative 2 reduces the amount of construction required and significantly reduces the proposed pool surface area and programming opportunities, traffic impacts are considered to be less for this alternative when compared to the proposed Project. Overall, traffic impacts would be reduced during construction and operations when compared to the Project; therefore, Alternative 2 would have fewer traffic impacts than the proposed Project.

Utilities and Service Systems. Alternative 2 eliminates the indoor pools and diving well, thereby decreasing the usable pool space by approximately 49 percent. Demand for water, electricity, and natural gas would be reduced as there would be less pool area to maintain and heat. The reduced pool space would lead to a reduction in visitors and the number of special events, and subsequently, a reduction in the amount of demand for most utilities and service systems. The capacity needs for wastewater, solid waste, and, as a result of a decrease in impervious area, urban runoff would be reduced as well. Under Alternative 2, emergency calls for police and fire services are anticipated to be the same or less than for the proposed Project. Although no significant and unavoidable utilities and service systems impacts are identified for either scenario, because Alternative 2 reduces the total amount of pool space by approximately 49 percent, Alternative 2 would have fewer utilities and service system impacts than the proposed Project.

5.5.3 Attainment of Project Objectives

Unlike the proposed Project, Alternative 2 would not replace the former Belmont Pool complex with a modern pool complex. This alternative would convert the existing temporary pool facilities into permanent structures and would include the construction of associated support facilities. Alternative 2 would achieve some, but not all, of the Project objectives.

The administrative and support facilities would occupy a substantially reduced project footprint as compared to the proposed Project, and, therefore, minimize view disruptions compared to the proposed Project and would maximize views to the ocean from the newly-permanent outdoor facility (Objectives 11 and 12). Similar to the proposed Project, Alternative 2 would maintain the pool facility in a location that would serve the existing users, although not to the same extent as the proposed Project, and would provide a passive open space area (Objectives 13 and 14). The existing backfilled sand area would be removed

and the park area would be expanded under Alternative 2, therefore increasing the amount of open space compared to the former Belmont Pool facility (Objective 15).

Similar to the proposed Project, the outdoor facility would utilize high performance materials for the maximization of sustainability and energy efficiency as determined feasible (Objective 10).

The activities to make the existing pool facilities permanent would reduce the amount and length of construction required to build the Project, which would minimize the time period that the community is without a pool facility (Objective 3). However, Alternative 2 would not provide a new pool complex, and, therefore, would not achieve any of the project objectives associated with the implementation of a new pool facility on the former Belmont Pool site (Objectives 1, 2, and 6). Although the outdoor temporary pool is 50 meters x 25 meters, it would not be able to meet the full demand for recreation and competition pool use, would not have any permanent seating, and could not host events to the same degree as the proposed Project (Objective 4). Although would be able to operate a pool facility, Alternative 2 would not increase programmable water space, accommodate national/international aquatic events, or generate revenue from pool facility events to the same extent as the proposed Project (Objectives 5, 7, and 8). Therefore, Alternative 2 would not meet the needs of the aquatic community.

Although this alternative would not require a height variance for the Bubble structure, Alternative 2 would include additional impacts related to parking losses. Unlike the proposed Project, Alternatives 2 includes the permanent loss of approximately 135 parking spaces in the western part of the Beach Parking Lot, the existing location of the temporary pool. This permanent loss of parking would require replacement parking elsewhere in the vicinity of the pool facility, which would be determined according to the provisions of PD-2 and the Local Coastal Program if it is interpreted that this parking loss would decrease public access to the coast. Alternative 2 would include the potential for additional impacts related to compliance with the land use provisions of PD-2 (Objective 9).

Therefore, the elimination of indoor pools and to the conversion of the temporary pool to a permanent facility under Alternative 2 would not maximize the potential of the site as an aquatic recreational complex. Although Alternative 2 would meet Project Objectives 3, 10, 11, 12, 13, 14, and 15, it would not meet them to the same degree as the proposed Project. In addition, this alternative would not meet any of the Project Objectives related to the provision of a new pool complex that would serve the recreation needs of the general public, as well as the needs of the established aquatic community served by the former Belmont Pool facility.

5.5.4 Conclusion

Alternative 2 would eliminate the indoor pool facility and reduce the total pool surface area by approximately 49 percent. The reduced project footprint would result in an increase in open space. Although the indoor pool component would be eliminated with Alternative 2, impacts related to cultural resources, geology and soils, hazardous materials, and noise (operations) would be similar to the proposed Project for this alternative.

Construction-related biological resources, hydrology and water quality, air quality, global climate change, noise, and traffic impacts would be fewer than those under the proposed Project because construction activities would be reduced.

Operational-related impacts associated with aesthetics, air quality, global climate change, hydrology and water quality, noise, traffic and circulation, and utilities and service systems impacts would be reduced when compared to the proposed Project. These impacts were determined to be less than significant for the proposed Project, and would remain less than significant for this alternative.

Compared to the proposed Project, land use and recreational impacts are greater for Alternative 2 due to the permanent loss of public beach parking and the reduction in available recreational opportunities and programmable water area as compared to the proposed Project. A variance could be required if the replacement parking cannot be relocated as provided in the land use requirements outlined in PD-2.

Similar to the proposed Project, Alternative 2 would not result in any significant unavoidable impacts. However, due to the elimination of the indoor pool component under Alternative 2, overall impacts would be incrementally less than the proposed Project with the exception of land use and recreational impacts, which would be greater.

5.6 ALTERNATIVE 3: OUTDOOR DIVING WELL/REVISED SITE PLAN

5.6.1 Description

This alternative would be similar to the proposed Project, but would locate the diving well outside the proposed pool facility. Locating the diving well outside the Bubble structure would reduce the height of the building. However, a height variance would still be required as the building would exceed the 30' height limit. Due to space constraints in the proposed outdoor aquatic area, the separate 115 sf whirlpool for divers would not be included in Alternative 3.

5.6.2 Environmental Analysis

Aesthetics. Alternative 3 would modify the aesthetics of the proposed structure. The location of the diving well outside of the Bubble structure would decrease the height of the building, thereby representing a reduction in the overall scale of the structure as compared to the proposed Project. Although this alternative would be smaller in scale, on- and off-site views of the Project site would be similar to the proposed Project because the Bubble, the Support Bar Building, the Beach Café, and a majority of the Plinth would still be constructed. The open space and park area would increase under this alternative. The location of the diving well to the outdoor areas would require additional, taller outdoor lighting fixtures, but similar to the proposed Project, this alternative would be required to comply with the City's lighting code. Potential aesthetic impacts related to construction would be reduced, but similar compared to impacts under the proposed Project. Similar to the proposed Project, visual impacts associated with Alternative 3 would be considered less than significant. However,

because the building height would be reduced, Alternative 3 would result in reduced visual impacts as compared to the proposed Project.

Air Quality. Similar to the proposed Project, Alternative 3 would have less than significant impacts related to air quality. Construction and operational emissions associated with Alternative 3 would be similar since the site plan would be revised but similar vehicle trips would be generated. Although the bubble structure would be reduced in height, Overall air quality impacts would be similar during construction when compared to the Project due to the similar structures proposed for construction. Similar to the proposed Project, Alternative 3 would not exceed significance thresholds for criteria pollutants with implementation of mitigation and standard South Coast Air Quality Management District (SCAQMD) measures. Operational impacts would be similar with minor changes to the amount of pool square footage. Overall, there would be similar air quality emissions; therefore, Alternative 3 would result in air quality impacts similar to the proposed Project.

Biological Resources. Similar to the proposed Project, Alternative 3 would have less than significant impacts related to biological resources. Alternative 3, like the proposed Project, would remove vegetation on the Project site to create the open space and park areas. Therefore, similar to the proposed Project, implementation of Alternative 3 would include mitigation to reduce potential impacts associated with the removal of on-site ornamental landscaping and associated nesting bird species during the breeding season. This alternative would implement a landscape plan similar to the proposed Project. Therefore, biological impacts associated with Alternative 3 are considered to be similar to the proposed Project.

Cultural and Paleontological Resources. Similar to the proposed Project, Alternative 3 would not significantly impact known cultural resources. No archaeological or historical resources are known to exist at the Project site. However, a sensitive geologic formation, Young Alluvial Floodplain Deposits, have the potential to be encountered at approximately 23 ft below grade. Similar to the proposed Project, Alternative 3 would involve excavation and construction activities and would be required to adhere to mitigation to protect any unknown archaeological or paleontological resources. Therefore, this alternative's impacts to cultural resources would be similar to the proposed Project.

Geology and Soils. Similar to the proposed Project, Alternative 3 would have less than significant impacts related to geology and soils with implementation of mitigation and adherence to the recommendations of the geology study and additional testing for corrosive soils. Construction and excavation activities associated with implementation of this alternative would be similar to those associated with the proposed Project; therefore, impacts to geology and soils would be comparable. Geology and soils impacts associated with Alternative 3 are, therefore, considered to be similar to the proposed Project.

Global Climate Change. Similar to the proposed Project, Alternative 3 would have less than significant impacts related to GHG emissions and global climate change. Overall, GHG emissions would be similar during construction when compared to the proposed Project due to the comparable amount of building construction. Operational emissions for Alternative 3 would also be similar to the proposed Project due to a similar amount of square footage and similar projected uses at the facility. Therefore, Alternative 3 would have similar GHG impacts as the proposed Project.

Hazards and Hazardous Materials. Similar to the proposed Project, Alternative 3 would have less than significant impacts related to hazards and hazardous materials. Although there would be revisions to the site plan for this alternative, Alternative 3 would still be required to implement mitigation measures to reduce impacts associated with regulations for handling hazardous materials during construction activities. Neither the proposed Project nor Alternative 3 would result in significant adverse impacts related to hazardous materials during Project operations. Overall, impacts related to hazardous materials are considered the same for Alternative 3 as for the proposed Project.

Hydrology and Water Quality. Similar to the proposed Project, construction of Alternative 3 could potentially impact water quality related to erosion and pollutants. However, compliance with regulatory requirements and mitigation would ensure these impacts would be less than significant. Although the diving well would be located outside for this alternative and a separate whirlpool for divers would not be included, water quality impacts associated with construction would be similar, since all major components on the Project site would be still be constructed. Alternative 3 would have a reduced building height, but would have a similar amount of impervious surfaces as the proposed Project. With compliance with regulatory requirements, operational impacts would be less than significant for this alternative, similar to the proposed Project. Overall, impacts related to hydrology for Alternative 3 would be similar to the proposed Project.

Land Use. Alternative 3 would include the construction of the Bubble structure, but the structure would be at a reduced height because the diving well would be relocated to the outside of the building. However, similar to the proposed Project, the Bubble structure under Alternative 3 would still exceed the 30-foot height limit and would require a height variance. Under this alternative, as well as the proposed Project, there would be no impacts related to the division of an existing community. Similar to the proposed Project, Alternative 3 would be consistent with the policies contained in the City's General Plan and the Southern California Association of Government's (SCAG) Regional Comprehensive Plan. Overall, similar to the proposed Project, Alternative 3 would not conflict with adjacent land uses and would be consistent with applicable goals and policies from the City's General Plan, the Local Coastal Program, and the City's Zoning Code. Overall, impacts related to land use for Alternative 3 are considered similar to the proposed Project.

Noise. Similar to the proposed Project, Alternative 3 would have less than significant impacts related to noise. Alternative 3 would have a similar duration for construction activities as the proposed project and would therefore have similar construction-related noise impacts.

Alternative 3 would move the diving well outside, as well as the associated seating and outdoor speakers. Crowd noise and whistles from aquatic events performed outside would be greater with the location of these activities outside of the proposed Project's Bubble structure. Although neither the proposed Project nor Alternative 3 would result in significant adverse impacts related to noise during construction or Project operations, overall impacts related to noise would be increased for Alternative 3 due to the diving activities being moved to the outdoor area. Therefore, Alternative 3 would result in greater noise impacts as compared to the proposed Project.

Recreation. Under both the proposed Project and Alternative 3, access to the Belmont Veteran's Memorial Pier, parking lots, beach areas, and the pedestrian/bicycle path may be subject to disruption during construction activities. However, both alternatives would include implementation of mitigation requiring a Construction Traffic Management Plan. Construction activities are expected to have less than significant impacts on access to the surrounding off-site recreational facilities.

Alternative 3, similar to the proposed Project, would not result in an increased demand for recreational facilities or require development or expansion of additional recreational facilities. Neither this alternative nor the proposed Project changes the Project site's intended and designated use for recreational purposes. No significant and unavoidable recreational impacts are identified for either the proposed Project or Alternative 3. The total pool surface area for this alternative would be similar to the proposed project, and the demand for programming competitive swimmers, divers, and aquatic sports participants would be met. Therefore, operational recreational impacts are considered similar to the proposed project for this alternative.

Transportation and Circulation. Under both the proposed Project and Alternative 3, potentially significant impacts related to construction traffic and special event traffic could occur. However, both the proposed Project and Alternative 3 would require implementation of mitigation requiring an Event Traffic Management Plan for special events, and a Construction Traffic Management Plan. With these measures, less than significant traffic impacts would occur for both the proposed Project and Alternative 3.

Construction and operational traffic associated with Alternative 3 would be similar since the amount of operational pool space and spectator seating would also be similar to the proposed Project. No significant and unavoidable traffic impacts are identified for either scenario. Overall, traffic impacts would be similar during construction and operations when compared to the Project; therefore, Alternative 3 would have similar traffic impacts than the proposed Project.

Utilities and Service Systems. Alternative 3 includes a similar usable pool area as the proposed Project. There would be similar numbers of visitors and special events, and subsequently, a similar amount of demand for most utilities and service systems. Demand for water, electricity, and natural gas would be the same as the proposed Project. The capacity needs for wastewater, solid waste, and urban runoff would also be similar to the proposed Project. Under Alternative 3, emergency calls for police and fire services are anticipated to be the same as for the proposed Project. No significant and unavoidable utilities and service systems impacts are identified for either scenario. Therefore, Alternative 3 would have similar utilities and service system impacts as the proposed Project.

5.6.3 Attainment of Project Objectives

Similar to the proposed Project, Alternative 3 would replace the former Belmont Pool complex with a modern pool complex. However, the site plan under Alternative 3 would be revised to locate the diving well component outside in order to reduce the height of the Bubble structure. This alternative would achieve many of the of the Project objectives, but not to the same extent as the proposed Project.

The relocation of the diving well to the outdoor pool area would result in a similar length of construction required to build the proposed Project, which would minimize the time period that the community is without a state-of-the-art recreation and competitive pool facility (Objective 3). In addition, the height of the Bubble structure would be reduced under Alternative 3, which would reduce the scale of the proposed buildings and improve scenic views of the coastline from inside and outside the facility, as compared to the proposed Project and the former Belmont Pool facility (Objectives 11 and 12). The amount and type of landscaped open space areas under Alternative 3 would be the same as the proposed Project (Objectives 14 and 15). Alternative 3 would provide a new pool complex that is compatible with its seaside location (Objective 6).

Similar to the proposed Project, Alternative 3 would provide a pool complex that accommodates swimming, diving, and water polo national/international events that include current competitive standards, in accordance with FINA regulations (Objective 7). However, because Alternative 3 would relocate the diving well to the outdoor pool component, space constraints would require the consolidation of pools and removal of the divers' whirlpool and the loss of an indoor competitive diving facility. Competitive divers and certain competitive events prefer indoor competitive facilities over outdoor facilities. The pool complex would be able to hold the same amount of the special events and public aquatic opportunities as compared to the proposed Project. Alternative 3 would not experience a substantial reduction in usable pool space or aquatic opportunities as a result of the revised site plan, and, therefore, be able to operate a pool facility that generates revenue to help offset the ongoing operation and maintenance costs (Objective 8).

Alternative 3, similar to the proposed Project, would redevelop and replace the former Belmont Pool with a more modern facility comprised of high performance materials that better meet the needs of recreational and competitive swimmers, divers, aquatic sports participants, and additional pool users (Objectives 1, 2, and 10) and increases programmable water space to minimize scheduling conflicts (Objective 5) that occurred during the

operations of the former Belmont Pool facility. Both Alternative 3 and the proposed Project would locate the pool in an area that serves the existing users (Objective 13). Alternative 3 would include a total pool surface area of 36,335 sf, only 115 sf less than the proposed project (due to the loss of the whirlpool for divers). The increase in pool area would be comparable to the proposed Project and would alleviate the overcrowding and schedule conflicts of the former Belmont Pool. Therefore, Alternative 3 would meet the needs of aquatic community, similar to the proposed Project.

The proposed Project would include possible total of 4,250 seats (Objective 4) through the combination of 3,000 temporary outdoor seats for special events and 1,250 permanent indoor seats. By moving the diving well to the outdoor pool component, Alternative 3 would include the reconfiguration of the outdoor pool components, which may result in a reduction of outdoor seating. Alternative 3 is in compliance with the land use goals of Planned Development PD-2 (Objective 9). Therefore, Alternative 3 would meet a majority of the Project Objectives, similar to the proposed Project.

5.6.4 Conclusion

Alternative 3 would move the diving well outside, reducing the pool surface area by only 115 sf. Although the diving well would be located to the outdoor pool component under Alternative 3, impacts related to air quality, biological resources, cultural resources, geology and soils, global climate change, hazardous materials, hydrology and water quality, land use, recreation, traffic, and utilities and service systems impacts would be similar to the proposed Project for this alternative.

Operational-related impacts associated with aesthetics would be reduced when compared to the proposed Project due to the reduced project height. These impacts were determined to be less than significant for the proposed Project, and would remain less than significant for this alternative.

Compared to the proposed Project, operational noise impacts are greater for Alternative 3, as compared to the proposed Project, due to the location of additional activities, such as the diving well, to the outdoor pool area.

Similar to the proposed Project, Alternative 3 would not result in any significant unavoidable impacts. Overall impacts would be incrementally less than the proposed Project with the exception of noise impacts, which would be greater.

5.7 ALTERNATIVE 4: REDUCED PROJECT - NO OUTDOOR COMPONENTS

5.7.1 Description

Alternative 4 is a Reduced Project Alternative, which would eliminate the outdoor pool component, including the recreation pool, competition pool, and the public address system. The indoor component, facility amenities, and building design components would remain in place; however, the size of the Plinth structure would be reduced and be centralized around

the Bubble component of the Project. The removal of the outdoor component would represent an approximately 20–30 percent reduction in the size of the building footprint and an approximately 49 percent reduction in the total pool area as compared to the proposed project. As part of this alternative, the outdoor cafe would remain. A height variance would still be required under this alternative due to indoor diving well.

5.7.2 Environmental Analysis

Aesthetics. Alternative 4 would eliminate the outdoor pool area and would modify the aesthetics of the proposed structure. The removal of the outdoor pool area would include the removal of the Plexiglas barrier and reduce the size of the Plinth, thereby representing a reduction in the overall mass and footprint of the structure as compared to the proposed Project. Because this alternative would be smaller in scale, impacts to views would be reduced as compared to the proposed Project. The open space and park area would increase under this alternative. This alternative would, like the proposed Project, be required to comply with the City's lighting code, although lighting would be reduced with the elimination of the outdoor pool components. Under this alternative, potential aesthetic impacts related to construction would be reduced compared to impacts under the proposed Project because construction activities would be incrementally reduced. Similar to the proposed Project, visual impacts associated with the Reduced Project Alternative would be considered less than significant. However, Alternative 4 would result in fewer construction and operational visual impacts as compared to the proposed Project due to the reduction in the proposed facilities.

Air Quality. Similar to the proposed Project, Alternative 4 would have less than significant impacts related to air quality. Construction and operational emissions associated with Alternative 4 would be reduced since the amount of operational pool space would be reduced and fewer vehicle trips would be generated due to the reduced size of the alternative. Overall, air quality impacts would be incrementally reduced during construction when compared to the Project due to the reduced amount of building construction. Similar to the proposed Project, Alternative 4 would not exceed significance thresholds for criteria pollutants with implementation of mitigation and standard South Coast Air Quality Management District (SCAQMD) measures. Operational impacts would be reduced with the reduced amount of pool square footage. Overall, there would be fewer air quality emissions; therefore, Alternative 4 would result in fewer air quality impacts than the proposed Project.

Biological Resources. Similar to the proposed Project, Alternative 4 would have less than significant impacts related to biological resources. Alternative 4, like the proposed Project, would remove vegetation on the Project site to create the open space and park areas. Therefore, similar to the proposed Project, implementation of Alternative 4 would include mitigation to reduce potential impacts associated with the removal of on-site ornamental landscaping and associated nesting bird species during the breeding season. This alternative would implement a landscape plan similar to the proposed Project, but would include additional park and open space area. Therefore, biological impacts associated with Alternative 4 are considered to be similar to the proposed Project.

Cultural and Paleontological Resources. Similar to the proposed Project, Alternative 4 would not significantly impact known cultural resources. No archaeological or historical resources are known to exist at the Project site. However, a sensitive geologic formation, Young Alluvial Floodplain Deposits, have the potential to be encountered at approximately 23 ft below grade. Similar to the proposed Project, Alternative 4 would involve excavation and construction activities and would be required to adhere to mitigation to protect any unknown archaeological or paleontological resources. Therefore, this alternative's impacts to cultural resources would be similar to the proposed Project.

Geology and Soils. Similar to the proposed Project, Alternative 4 would have less than significant impacts related to geology and soils with implementation of mitigation and adherence to the recommendations of the geology study and additional testing for corrosive soils. Construction and excavation activities associated with implementation of this alternative would be less than, but similar to those associated with the proposed Project; therefore, impacts to geology and soils would be comparable. Geology and soils impacts associated with Alternative 4 are, therefore, considered to be similar to the proposed Project.

Global Climate Change. Similar to the proposed Project, Alternative 4 would have less than significant impacts related to GHG emissions and global climate change. Overall, GHG emissions would be incrementally reduced during construction when compared to the proposed Project due to the reduced amount of building construction. Operational emissions would also be reduced due to the reduced amount of square footage and fewer associated vehicle trips. Overall, there would be incrementally fewer GHG emissions; therefore, Alternative 4 would have fewer GHG impacts as compared to the proposed Project.

Hazards and Hazardous Materials. Similar to the proposed Project, Alternative 4 would have less than significant impacts related to hazards and hazardous materials. Although there would be reduced construction required for this alternative, Alternative 4 would still be required to implement mitigation measures to reduce impacts associated with regulations for handling hazardous materials during construction activities. Neither the proposed Project nor Alternative 4 would result in significant adverse impacts related to hazardous materials during Project operations. Overall, impacts related to hazardous materials are considered the same for Alternative 4 as for the proposed Project.

Hydrology and Water Quality. Similar to the proposed Project, construction of Alternative 4 could potentially impact water quality related to erosion and pollutants. However, compliance with regulatory requirements and mitigation would ensure these impacts would be less than significant. Water quality impacts associated with construction would be similar, although incrementally reduced for this alternative, since all components on the Project site, with the exception of the outdoor pool components, would be still be constructed. Additionally, Alternative 4 would have a reduced building square footage, and would result

in less impervious surfaces. With compliance with regulatory requirements, operational impacts would be less than significant for this alternative, similar to the proposed Project. Overall, impacts related to hydrology for Alternative 4 would be incrementally fewer than for the proposed Project.

Land Use. Similar to the proposed Project, Alternative 4 would be constructed up to a maximum height of 75 ft and require a variance for the exceedance of the 30-foot height limit. Under this alternative, as well as the proposed Project, there would be no impacts related to the division of an existing community. Similar to the proposed Project, Alternative 4 would be consistent with the policies contained in the City's General Plan and the Southern California Association of Government's (SCAG) Regional Comprehensive Plan. Overall, similar to the proposed Project, Alternative 4 would not conflict with adjacent land uses and would be consistent with applicable goals and policies from the City's General Plan, the Local Coastal Program, and the City's Zoning Code. Therefore, impacts related to land use for Alternative 4 are considered similar to the proposed Project.

Noise. Similar to the proposed Project, Alternative 4 would have less than significant impacts related to noise. However, Alternative 4 would reduce the duration of the construction activities and would, therefore, result in reduced construction-related noise impacts.

Alternative 4 would eliminate the outdoor pool area, as well as the associated temporary bleachers and outdoor speakers. Crowd noise and whistles from aquatic events occurring outside would be eliminated. Although neither the proposed Project nor Alternative 4 would result in significant adverse impacts related to noise during construction or Project operations, overall impacts related to noise would be reduced for Alternative 4 due to the removal of outdoor pool activities. Therefore, Alternative 4 would result in fewer noise impacts as compared to the proposed Project.

Recreation. Under both the proposed Project and Alternative 4, access to the Belmont Veteran's Memorial Pier, parking lots, beach areas, and the pedestrian/bicycle path may be subject to disruption during construction activities. However, both the alternative and the proposed Project would include implementation of mitigation requiring a Construction Traffic Management Plan. Construction activities are expected to have less than significant impacts on access to the surrounding off-site recreational facilities.

Alternative 4, similar to the proposed Project, would not result in an increased demand for recreational facilities or require development or expansion of additional recreational facilities. Neither this alternative nor the proposed Project changes the Project site's use for recreational purposes. Although no significant and unavoidable recreational impacts are identified for either scenario, the proposed Project includes approximately 36,450 square feet (sf) of pool surface area, as compared to a total pool surface area of 18,610 sf under Alternative 4. This is substantially less programmable water area than the proposed Project, and only 200 sf more than the former Belmont facility. Alternative 4 would not allow as many recreational and competitive activities to occur simultaneously. Without substantially increasing the pool

surface area from the former Belmont pool, operational-related recreational impacts are considered greater for this alternative.

Transportation and Circulation. Under both the proposed Project and Alternative 4, potentially significant impacts related to construction traffic and special event traffic could occur. However, both Alternative 4 and the proposed Project would require implementation of mitigation requiring an Event Traffic Management Plan for special events, and a Construction Traffic Management Plan be implemented. With these measures, less than significant traffic impacts would occur for both the proposed Project and Alternative 4.

Construction and operational traffic associated with Alternative 4 would be reduced since the amount of operational pool space and temporary spectator seating would also be reduced resulting in fewer vehicle trips generated. Although no significant and unavoidable traffic impacts are identified for either scenario, because Alternative 4 reduces the amount of construction required and the proposed pool space by approximately 49 percent, traffic impacts are considered to be less for this alternative when compared to the proposed Project. Overall, traffic impacts would be reduced during construction and operations when compared to the Project; therefore, Alternative 4 would have fewer traffic impacts than the proposed Project.

Utilities and Service Systems. Alternative 4 eliminates the outdoor pool, thereby decreasing the usable pool space by approximately 49 percent. The reduced pool space would lead to a reduction in visitors and the number of special events, and subsequently, a reduction in the amount of demand for most utilities and service systems. Demand for water, electricity, and natural gas would also be reduced as there would be less pool area to maintain and heat. The capacity needs for wastewater, solid waste, and, as a result of a decrease in impervious area, urban runoff would be reduced as well. Under Alternative 4, emergency calls for police and fire services are anticipated to be the same or less than for the proposed Project. Although no significant and unavoidable utilities and service systems impacts are identified for either scenario, because Alternative 4 reduces the amount of pool space by approximately 49 percent, utilities and service system impacts are considered to be lower for this alternative when compared to the proposed Project. Therefore, Alternative 4 would have fewer utilities and service system impacts than the proposed Project.

5.7.3 Attainment of Project Objectives

Similar to the proposed Project, Alternative 4 would replace the former Belmont Pool complex with a modern pool complex. However, because it would not include outdoor pools, this alternative would achieve some, but not all, of the Project objectives.

The elimination of the outdoor pools would reduce the amount and length of construction required to build the Project, which would minimize the time period that the community is without a state-of-the-art recreation and competitive pool facility (Objective 3). In addition, the smaller building footprint would reduce the mass and scale of the proposed Plinth component and potentially increase landscaped open space areas and provide additional

views of the coastline from inside and outside the facility (Objectives 11, 12, 14, and 15). Therefore, Alternative 4 would provide a new pool complex that is compatible with its seaside location (Objective 6). Both Alternative 4 and the proposed Project would locate the pool in an area that serves the existing users (Objective 13) and would utilize high performance materials for the maximization of sustainability and energy efficiency (Objective 10).

Similar to the proposed Project, Alternative 4 would be a pool complex that accommodates swimming, diving, and water polo national/international events that include current competitive standards, in accordance with FINA regulations (Objective 7). However, because Alternative 4 would result in 49 percent less pool space compared to the proposed Project, the pool complex would not be able to hold as many special events and public aquatic opportunities as compared to the proposed Project and would not maximize the potential of the site as an aquatic recreational complex. The facility would also not be able to simultaneously support both competitive and recreational uses. Similarly, although Alternative 4 would be able to operate a pool facility that generates revenue to help offset the ongoing operation and maintenance costs (Objective 8), the reduced pool space would result in a reduced number of special events and associated revenue. Therefore, this alternative would meet Objective 8 to a lesser degree than the proposed project.

Although Alternative 4 would redevelop and replace the former Belmont Pool with a more modern facility that better meets the needs of recreational and competitive swimmers, divers, and aquatic sports participants, (Objectives 1, and 2), and increases programmable water space to minimize scheduling conflicts (Objective 5), it does not meet these objectives to the same degree as the proposed Project. Alternative 4 provides only 330 sf more pool area than the former Belmont Pool facility, and is 49 percent less pool area than the proposed Project. The small increase in pool area would not alleviate the overcrowding and schedule conflicts of the former Belmont Pool as compared to the proposed Project. Therefore, Alternative 4 would not better meet the needs of aquatic community. This alternative would, therefore, be inconsistent with Objectives 2 and 5.

The proposed Project would include a total of 4,250 seats (Objective 4) through the combination of 3,000 temporary outdoor seats for special events and 1,250 permanent indoor seats. By removing the outdoor pool, Objective 4 would not be met because Alternative 4 would eliminate the 3,000 outdoor seats, leaving only 1,250 permanent indoor seats. The indoor diving well would require that the Bubble structure remain at a height that exceeds the limitations provided for the PD-2, similar to the proposed Project, which would require a variance for the structure to comply with the land use goals of Planned Development PD-2 (Objective 9). Therefore, the elimination of the outdoor pools under Alternative 4 would not maximize the potential of the site as an aquatic recreational complex. Although Alternative 4 would meet Project Objectives 1, 7, 11, 12, 14, and 15, it would not meet them or the remaining Project Objectives to the same degree as the proposed Project.

5.7.4 Conclusion

Alternative 4 would eliminate the outdoor pools and reduce the pool surface area by 49 percent as compared to the proposed Project. The Plinth and structural footprint would also

be reduced and would result in an increase in open space. Although the outdoor pool component would be eliminated with Alternative 4, impacts related to biological resources, cultural resources, geology and soils, hazardous materials, and land use would be similar to the proposed Project for this alternative.

Construction-related aesthetics, hydrology and water quality, air quality, global climate change, noise, and traffic impacts would be fewer than those under the proposed Project because construction activities would be reduced.

Operational-related impacts associated with aesthetics, air quality, global climate change, hydrology and water quality, noise, traffic and circulation, and utilities and service systems impacts would be reduced when compared to the proposed Project. These impacts were determined to be less than significant for the proposed Project, and would remain less than significant for this alternative.

Compared to the proposed Project, recreational impacts are greater for Alternative 4 due to the reduction in available aquatic recreational opportunities as compared to the proposed Project.

Similar to the proposed Project, Alternative 4 would not result in any significant unavoidable impacts. However, due to the elimination of the outdoor pool component under Alternative 4, overall impacts would be incrementally less than the proposed Project with the exception of recreational impacts, which would be greater.

5.8 ALTERNATIVE 5: REDUCED PROJECT - NO DIVING WELL AND NO OUTDOOR COMPONENTS

5.8.1 Description

This alternative would be similar to Alternative 4, but would eliminate the outdoor pool components and the indoor diving well component. The open space and park area would be expanded under this alternative as the footprint of the facility would be reduced. Although this alternative would reduce the height of the building, it would still require a height variance due to the height limitation of 30 ft on the Project site.

5.8.2 Environmental Analysis

Aesthetics. Alternative 5 would eliminate the diving well and outdoor pool area, and, as a result, would modify the aesthetics of the proposed structure. The removal of the outdoor pool area would include the removal of the Plexiglas barrier and reduce the size of the Plinth, thereby representing a reduction in the overall mass and footprint of the structure as compared to the proposed Project. Because this alternative would be smaller in scale, impacts to views would be reduced as compared to the proposed Project. The Bubble interior mezzanines and levels the Beach Cafe, and a majority of the Plinth would still be constructed, but, with removal of the diving well component, the height of the building would be reduced. However, Alternative 5 would still exceed the 30-foot height limit and would require a height variance. Open space and park area would also increase under this alternative. This

alternative would, like the proposed Project, be required to comply with the City's lighting code, although lighting would be reduced with the elimination of the outdoor pool components. Under this alternative, potential aesthetic impacts related to construction would be reduced compared to impacts under the proposed Project because construction activities would be incrementally reduced. Similar to the proposed Project, visual impacts associated with Alternative 5 would be considered less than significant. Alternative 5 would result in fewer visual impacts compared to the proposed Project.

Air Quality. Similar to the proposed Project, Alternative 5 would have less than significant impacts related to air quality. Construction and operational emissions associated with Alternative 5 would be reduced since the amount of operational pool space would be reduced and fewer vehicle trips would be generated due to the reduced size of the alternative. Overall, air quality impacts would be incrementally reduced during construction when compared to the Project due to the reduced amount of building construction. Similar to the proposed Project, Alternative 5 would not exceed significance thresholds for criteria pollutants with implementation of mitigation and standard South Coast Air Quality Management District (SCAQMD) measures. Operational impacts would be reduced with the reduced amount of pool square footage. Overall, there would be fewer air quality emissions; therefore, Alternative 5 would result in fewer air quality impacts than the proposed Project.

Biological Resources. Similar to the proposed Project, Alternative 5 would have less than significant impacts related to biological resources. Alternative 5, like the proposed Project, would remove vegetation on the Project site to create the open space and park areas. Therefore, similar to the proposed Project, implementation of Alternative 5 would include mitigation to reduce potential impacts associated with the removal of on-site ornamental landscaping and associated nesting bird species during the breeding season. This alternative would implement a landscape plan similar to the proposed Project, but with more open space and park area. Therefore, biological impacts associated with Alternative 5 are considered to be similar to the proposed Project.

Cultural and Paleontological Resources. Similar to the proposed Project, Alternative 5 would not significantly impact known cultural resources. No archaeological or historical resources are known to exist at the Project site. However, a sensitive geologic formation, Young Alluvial Floodplain Deposits, have the potential to be encountered at approximately 23 ft below grade. Similar to the proposed Project, Alternative 5 would involve excavation and construction activities and would be required to adhere to mitigation to protect any unknown archaeological or paleontological resources. Therefore, this alternative's impacts to cultural resources would be similar to the proposed Project.

Geology and Soils. Similar to the proposed Project, Alternative 5 would have less than significant impacts related to geology and soils with implementation of mitigation and adherence to the recommendations of the geology study and additional testing for corrosive soils. Construction and excavation activities associated with implementation of this

alternative would be less than, but similar to those associated with the proposed Project; therefore, impacts to geology and soils would be comparable. Geology and soils impacts associated with Alternative 5 are, therefore, considered to be similar to the proposed Project.

Global Climate Change. Similar to the proposed Project, Alternative 5 would have less than significant impacts related to GHG emissions and global climate change. Overall, GHG emissions would be incrementally reduced during construction when compared to the proposed Project due to the lessened amount of building construction. Operational emissions would also be reduced with the reduced amount of square footage and fewer vehicle trips. Overall, there would be incrementally fewer GHG emissions; therefore, Alternative 5 would have fewer GHG impacts as compared to the proposed Project.

Hazards and Hazardous Materials. Similar to the proposed Project, Alternative 5 would have less than significant impacts related to hazards and hazardous materials. Although there would be reduced construction required for this alternative, Alternative 5 would still be required to implement mitigation measures to reduce impacts associated with regulations for handling hazardous materials during construction activities. Neither the proposed Project nor Alternative 5 would result in significant adverse impacts related to hazardous materials during Project operations. Overall, impacts related to hazardous materials are considered the same for Alternative 5 as for the proposed Project.

Hydrology and Water Quality. Similar to the proposed Project, construction of Alternative 5 could potentially impact water quality related to erosion and pollutants. However, compliance with regulatory requirements and mitigation would ensure these impacts would be less than significant. Water quality impacts associated with construction would be similar, although incrementally reduced for this alternative, since all of the components on the Project site, with the exception of the outdoor pool components and the diving well, would be still be constructed. Additionally, Alternative 5 would have a reduced building square footage, and would also have a reduced amount of impervious surfaces. With compliance with regulatory requirements, operational impacts would be less than significant for this alternative, similar to the proposed Project. Overall, impacts related to hydrology for Alternative 5 would be incrementally less than for the proposed Project.

Land Use. Unlike the proposed Project, Alternative 5 would not include the indoor diving well; however a variance would still be required for the exceedance of the 30-foot height limit. Under this alternative, as well as the proposed Project, there would be no impacts related to the division of an existing community. Similar to the proposed Project, Alternative 5 would be consistent with the policies contained in the City's General Plan and the Southern California Association of Government's (SCAG) Regional Comprehensive Plan. Overall, similar to the proposed Project, Alternative 5 would not conflict with adjacent land uses and would be consistent with applicable goals and policies from the City's General Plan, the Local Coastal Program, and the City's Zoning Code. Therefore, impacts related to land use for Alternative 5 are similar to the proposed Project.

Noise. Similar to the proposed Project, Alternative 5 would have less than significant impacts related to noise. However, Alternative 5 would reduce the duration of the construction activities and would, therefore, result in reduced construction-related noise impacts. Alternative 5 would also eliminate the outdoor pool area, as well as the associated temporary bleachers and outdoor speakers. Crowd noise and whistles from aquatic events performed outside would also be eliminated. Although neither the proposed Project nor Alternative 5 would result in significant adverse impacts related to noise during construction or Project operations, overall impacts related to noise would be reduced for Alternative 5. Therefore, Alternative 5 would result in fewer noise impacts as compared to the proposed Project.

Recreation. Under both the proposed Project and Alternative 5, access to the Belmont Veteran's Memorial Pier, parking lots, beach areas, and the pedestrian/bicycle path may be subject to disruption during construction activities. However, both the proposed Project and Alternative 5 would include implementation of mitigation requiring a Construction Traffic Management Plan. Construction activities are expected to have less than significant impacts on access to the surrounding off-site recreational facilities.

Alternative 2, similar to the proposed Project, would not result in an increased demand for recreational facilities but could require development or expansion of additional recreational facilities in order to meet the needs of the competitive swimming, diving, and water polo communities. Neither this alternative nor the proposed Project changes the Project site's use for recreational purposes. Although no significant and unavoidable recreational impacts are identified for either scenario, Alternative 5 would include a total pool surface area of 14,290 sf or less, increasing the indoor surface water area of the former Belmont Pool facility by only 280 sf. Without substantially increasing the pool surface area from the former Belmont pool, recreational and competitive activities could not occur simultaneously, and the demand for programming competitive swimmers, divers, and aquatic sports participants would not be met. Therefore, operational recreational impacts are considered greater than the proposed project for this alternative.

Transportation and Circulation. Under both the proposed Project and Alternative 5, potentially significant impacts related to construction traffic and special event traffic could occur. However, both alternatives would include implementation of mitigation requiring an Event Traffic Management Plan for special events, and a Construction Traffic Management Plan. With these measures, less than significant traffic impacts would occur.

Construction and operational traffic associated with Alternative 5 would be reduced since the amount of operational pool space and temporary spectator seating would also be reduced resulting in fewer vehicle trips generated. Although no significant and unavoidable traffic impacts are identified for either scenario, because Alternative 5 reduces the amount of construction required and the proposed pool space by approximately 49 percent, traffic impacts are considered to be fewer for this alternative when compared to the proposed

Project. Overall, Alternative 5 traffic impacts would be reduced during construction and operations when compared to the Project.

Utilities and Service Systems. Alternative 5 eliminates the outdoor pool, thereby decreasing the usable pool space by approximately 49 percent. The reduced pool space would lead to a reduction in visitors and the number of special events, and subsequently, a reduction in the amount of demand for most utilities and service systems. Demand for water, electricity, and natural gas would be reduced, as there would be less pool area to maintain and heat. The capacity needs for wastewater, solid waste, and, as a result of a decrease in impervious area, urban runoff would be reduced as well. Under Alternative 5, emergency calls for police and fire services are anticipated to be the same or less than for the proposed Project. Although no significant and unavoidable utilities and service systems impacts are identified for either scenario, because Alternative 5 reduces the amount of pool space by approximately 49 percent, utilities and service system impacts are considered to be less for this alternative when compared to the proposed Project. Therefore, Alternative 5 would have fewer utilities and service system impacts than the proposed Project.

5.8.3 Attainment of Project Objectives

Similar to the proposed Project, Alternative 5 would replace the former Belmont Pool complex with a modern pool complex. However, because it would not include outdoor pools or the diving well component, this alternative would achieve some, but not all, of the Project objectives as the proposed Project.

The elimination of the outdoor pools and the diving well component would reduce the amount and length of construction required to build the Project, which would minimize the time period that the community is without a state-of-the-art recreation and competitive pool facility (Objective 3). In addition, the smaller project footprint would reduce the mass and scale of the proposed Plinth component, increasing landscaped open space areas, and providing additional views of the coastline from inside and outside the facility (Objectives 11, 12, 14, and 15). Therefore, Alternative 5 would provide a new pool complex that is compatible with its seaside location (Objective 6).

Similar to the proposed Project, Alternative 5 would accommodate swimming and water polo national/international events that include current competitive standards, in accordance with FINA regulations (Objective 7). However, because Alternative 5 would remove the diving well component and approximately 49 percent of the programmable pool space, the pool complex would not be able to hold the same number of special events and public aquatic opportunities as compared to the proposed Project. Similarly, although Alternative 5 would be able to operate a pool facility that generates revenue to help offset the ongoing operation and maintenance costs (Objective 8), the lack of a diving well and reduced pool space would result in a reduced number of special events and associated revenue. Therefore, this alternative would meet Objective 8 to a lesser degree than the proposed Project.

Although Alternative 5 would redevelop and replace the former Belmont Pool with a more modern facility that better meets the needs of recreational and competitive swimmers, divers,

and aquatic sports participants, (Objectives 1, and 2), and increases programmable water space to minimize scheduling conflicts (Objective 5), it does not meet these objectives to the same degree as the proposed Project. Alternative 5 provides only 200 sf more pool area than the former Belmont Pool facility, and is 49 percent less pool area than the proposed Project. The small increase in pool area would not alleviate the overcrowding and schedule conflicts of the former Belmont Pool as compared to the proposed Project. Therefore, Alternative 5 would not better meet the needs of aquatic community. This alternative would, therefore, be inconsistent with Objectives 2 and 5.

The proposed Project would include a total of 4,250 seats (Objective 4) through the combination of 3,000 temporary outdoor seats for special events and 1,250 permanent indoor seats. By removing the outdoor pool, Objective 4 would not be met because Alternative 5 would eliminate the 3,000 outdoor seats, leaving only 1,250 permanent indoor seats. Although the indoor diving well would be removed, the structure would still remain at a height that exceeds the limitations provided for the PD-2, similar to the proposed Project, which would require a variance for the structure to comply with the land use goals of Planned Development PD-2 (Objective 9). Therefore, the elimination of the outdoor pools under Alternative 5 would not maximize the potential of the site as an aquatic recreational complex. Although Alternative 5 would meet Project Objectives 1, 7, 11, 12, 14, and 15, it would not meet them or the remaining Project Objectives to the same degree as the proposed Project.

5.8.4 Conclusion

Alternative 5 would eliminate the outdoor pools and diving well component, and, as a result, reduce the pool surface area by approximately 49 percent. The Plinth and structural footprint would also be reduced and would result in an increase in open space. Although the outdoor pools and diving well component would be eliminated with Alternative 5, impacts related to biological resources, cultural resources, geology and soils, hazardous materials, and land use would be similar to the proposed Project for this alternative.

Construction-related hydrology and water quality, air quality, global climate change, noise, and traffic impacts would be fewer than those under the proposed Project because construction activities would be reduced.

Operational-related impacts associated with aesthetics, air quality, global climate change, hydrology and water quality, noise, traffic and circulation, and utilities and service systems impacts would be reduced when compared to the proposed Project. These impacts were determined to be less than significant for the proposed Project, and would remain less than significant for this alternative.

Compared to the proposed Project, recreational impacts are greater for Alternative 5 due to the reduction in available recreational opportunities as compared to the proposed Project.

Similar to the proposed Project, Alternative 5 would not result in any significant unavoidable impacts. However, due to the elimination of the outdoor pools and diving well component under the reduced Project Alternative, overall impacts would be incrementally less than the proposed Project with the exception of recreational impacts, which would be greater.

5.9 IDENTIFICATION OF ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires the identification of an Environmentally Superior Alternative. The *State CEQA Guidelines* Section 15126.6(e)(2) states that if the No Project Alternative is the Environmentally Superior Alternative, then the EIR shall also identify an Environmentally Superior Alternative among the other alternatives. Table 5.B provides, in summary format, a comparison of the level of impacts for each alternative to the proposed Project.

The No Project/No Development Alternative would be environmentally superior to the proposed Project on the basis of the lack of physical impacts that would occur with the No Project/No Development Alternative. While the No Project Alternative would lessen or avoid the impacts of the proposed Project, the beneficial impacts of the proposed Project—including the provisions of an aquatic recreational complex not currently provided by the City—would not occur, and none of the Project objectives would be met. Overall, however, the No Project/No Development Alternative is considered environmentally superior because the physical impacts associated with this alternative are significantly less than the proposed Project and other as alternatives.

The *State CEQA Guidelines* require that if the environmentally superior alternative is the No Project Alternative, “the EIR also identify an environmentally superior alternative among the other alternatives” (*State CEQA Guidelines* Section 15126.6(e)(20)). The Environmentally Superior Alternative, in terms of direct physical effects on the environment, is Alternative 5, No Diving Well and No Outdoor Pool Component/ Reduced Project.

Alternative 5 would eliminate the outdoor pool component and reduce the overall footprint and height of the pool structure, thereby reducing construction-related hydrology and water quality, air quality, global climate change, noise, and traffic impacts. Therefore, direct physical effects on the environment as a result of construction would be reduced as compared to the proposed Project.

Compared to the proposed Project, recreational impacts are greater for Alternative 5 due to the reduction in available recreational opportunities as compared to the proposed Project. However, operational-related impacts associated with aesthetics, air quality, global climate change, hydrology and water quality, noise, traffic and circulation, and utilities and service systems impacts would be reduced when compared to the proposed Project. Alternative 5 includes the reduction of aquatic opportunities that would subsequently lead to a reduction in visitors and operational requirements, thereby resulting in an overall lessening of environmental impacts compared to the proposed Project. Although Alternative 5 would be considered environmentally superior, the reduction of recreational facilities would not achieve the goals and objectives of the proposed Project, and would not be consistent with the primary objective of the City, which is to replace the former Belmont Pool with a more modern facility that better meets the needs of the local community, region and State’s recreational and competitive swimmers, divers, aquatic sports participants, and additional pool users due to the tremendous demand for these services in the local community, region and State.

Table 5.B: Comparison of the Environmental Impacts of the Proposed Project to the Project Alternatives

Environmental Topic	Proposed Project: Level of Impacts After Mitigation	Alternative 1: No Project/ No New Development Alternative	Alternative 2: Maintain Temporary Pool with Ancillary Uses	Alternative 3: Outdoor Diving Well/Revised Site Plan	Alternative 4: No Outdoor Components/ Reduced Project	Alternative 5: No Diving Well and No Outdoor Components/ Reduced Project
Aesthetics	Less Than Significant	L	L	L	L	L
Air Quality	Less Than Significant	L	L	S	L	L
Biological Resources	Less Than Significant	L	L	S	S	S
Cultural and Paleontological Resources	Less Than Significant	L	S	S	S	S
Geology and Soils	Less Than Significant	L	S	S	S	S
Global Climate Change	Less Than Significant	L	L	S	L	L
Hazards and Hazardous Materials	Less Than Significant	L	S	S	S	S
Hydrology and Water Quality	Less Than Significant	G	L	S	L	L
Land Use	Less Than Significant	G	G	S	S	S
Noise	Less Than Significant	L	S	G	L	L
Recreation	Less Than Significant	G	G	S	G	G
Transportation and Circulation	Less Than Significant	L	L	S	L	L
Utilities and Service Systems	Less Than Significant	L	L	S	L	L
Attainment of Project Objectives	Meets all of the Project objectives	Meets only two of the Project objectives	Meets a few of the Project objectives but not to the same degree as the proposed Project	Meets most of the Project objectives, but not to the same degree as the proposed Project	Meets some of the Project objectives but not to the same degree as the proposed Project	Meets some of the Project objectives but not to the same degree as the proposed Project

Source: LSA Associates, Inc. (February 2016).

Legend:

L = Less impacts than the proposed Project; reduces or eliminates significant and adverse impacts

S = Similar impacts as the proposed Project; does not eliminate significant and adverse impacts

G = Greater impacts than the proposed Project

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6.0 LONG-TERM IMPLICATIONS

6.1 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126.2 (c) of the Guidelines for the California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) consider and discuss significant irreversible changes that would be caused by implementation of the Belmont Pool Revitalization Project (proposed Project). The *State CEQA Guidelines* specify that the use of nonrenewable resources during the initial and continued phases of the Project should be discussed because a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary and secondary impacts (such as a highway improvement that provides access to a previously inaccessible area) should also be discussed because such changes generally commit future generations to similar uses. Irreversible damage can also result from environmental accidents associated with the Project and should be discussed.

The former indoor pool was closed to the public on January 13, 2013, as a result of substandard seismic and structural conditions. The Belmont Pool building was demolished to alleviate an imminent public safety threat in February 2015. The demolition of the structure was conducted under an emergency permit and this Environmental Impact Report (EIR) does not include analysis of the demolition of the former Belmont Pool structure. The proposed Project addressed in this Draft EIR is the replacement of the former Belmont Pool complex with a more modern pool complex. The proposed Project would be larger and would provide opportunities for public swimming, as well as a venue for swimming, diving and aquatic sports training, and competitive meets. These activities are very similar to the activities that have occurred over the past 45 years at the former pool complex.

To determine whether the proposed Project may result in significant irreversible effects requires a determination of whether key resources would be degraded or destroyed in such a way that there would be little possibility of restoring them. Construction of the proposed Project would result in a commitment of limited, slowly renewable, and nonrenewable resources. Such resources may include certain types of lumber and other forest products; raw materials such as steel; aggregate materials used in concrete and asphalt such as sand and stone; water; petrochemical construction materials such as plastic; and petroleum-based construction materials. In addition, fossil fuels used by construction equipment would also be consumed. Project construction will also result in an increased commitment of public maintenance services such as waste disposal and waste water treatment

Similarly, operation of the proposed Project would result in the commitment of limited, nonrenewable resources and slowly renewable resources such as natural gas, electricity, petroleum-based fuels, fossil fuels, and water. Natural gas and electricity will be used for lighting, heating, and cooling of the building and operation of Project facilities. As discussed in Section 4.13, Utilities and Service Systems, the Project is expected to result in an annual electricity demand of 895,215 kilowatt hours per year (kWh/yr) and an annual demand for approximately 0.00229 billion cubic feet (bcf) of natural gas. Although this represents an increase in demand for both resources when compared to existing site conditions, the increases are within the existing delivery capacity of service providers. The Project would not result in a significant adverse impact related to the provision of electricity or natural gas. In addition, Title 24 of the California Code of Regulations (CCR) requires conservation

practices that would limit the amount of energy consumed by the proposed Project. The proposed Project would reduce natural gas and electricity consumption through the installation of high-efficiency direct fire heating, and pool blankets. Nevertheless, the use of such resources would continue to represent a long-term commitment of essentially nonrenewable resources.

Operation of the proposed Project would also result in an increase in water demand. The annual Project demand for water is estimated to be 39.37af/year. Sufficient water supplies are available to service the Project, and Project impacts would be less than significant. As required of all new development in California, the proposed Project would comply with California State law regarding water conservation measures, including pertinent provisions of Title 24 of the California Government Code (Title 24) regarding the use of water-efficient appliances. In addition to complying with applicable Title 24 provisions, the proposed Project would incorporate additional water conservation measures. The increase in water demand generated by operations associated by the proposed project would be partially offset by the reduction in water consumption resulting from adherence to Leadership in Energy and Environmental Design (LEED) Gold standards, which includes features that would greatly enhance water conservation (see Section 3.0, Project Description). Therefore, with implementation of water conservation measures and incorporation of conservation features as part of LEED design, impacts associated with the increase in water demand as a result of the proposed Project would be further reduced. However, the increase in water use would continue to represent a long-term commitment of this essentially nonrenewable resource.

The proposed Project would change on-site drainage patterns; however, it would result in a permanent decrease in impervious surface area of approximately 0.5 ac, resulting in a decrease in the volume of runoff during a storm as described in Section 4.8, Hydrology and Water Quality. Project hydrology would meet drainage system standards set forth by the City's Municipal Separate Storm Sewer Systems (MS4) permit, and pollutants of concern would be controlled through implementation of structural and nonstructural best management practices (BMPs), including infiltration, capture and use, and biofiltration techniques.

In addition, site topography would be modified per the conceptual grading plan for the site; however, on-site topography would not be substantially different after Project implementation.

The commitment of limited, slowly renewable, and nonrenewable resources required for construction and operation of the proposed Project would limit the availability of these resources for future generations or for other uses during the life of the Project. However, the use of such resources for the Project would be consistent with regional and local plans and projected growth in the area.

6.2 GROWTH-INDUCING IMPACTS

Sections 15126(d) and 15126.2(d) of the State *CEQA Guidelines* require that an EIR analyze growth-inducing impacts and state that an EIR should discuss the ways in which the Project could foster economic or population growth or construction of additional housing, either directly or indirectly, in the surrounding environment. This section examines ways in which the proposed Project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. An assessment of other projects that could affect the environment, individually or cumulatively, is also required. To address this issue, potential growth-inducing effects were examined through analysis of the following questions:

- Would the Project remove obstacles to growth (e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the Project area, or through changes in existing regulations pertaining to land development)?
- Would this Project result in the need to expand one or more public services to maintain desired levels of service?
- Would this Project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?
- Would approval of this Project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?

It should be noted that growth-inducing effects are not to be construed as necessarily beneficial, detrimental, or of little significance to the environment (*State CEQA Guidelines*, Section 15126.2(d)). This issue is presented to provide additional information on ways in which this Project could contribute to significant changes in the environment beyond the direct consequences of developing the proposed land uses as described in earlier sections of this Draft EIR.

6.2.1 Removal of Obstacles to Growth

The proposed Project site was previously developed and is surrounded by a variety of urban uses. As discussed in Section 4.13, Utilities, implementation of the Project would not require infrastructure expansions except for improvements necessary to connect to existing surrounding infrastructure. Therefore, the proposed Project is not considered to be growth-inducing with respect to utilities.

As discussed in Section 4.12, Transportation/Traffic, the proposed Project does not require the extension of any roadways or additional roadway capacity, and no new off-site traffic improvements are required. Therefore, the proposed Project is not considered to be growth-inducing with respect to traffic or circulation conditions. Because the proposed Project is located in a built-up urban area and does not include any new major infrastructure improvements, it would not remove any obstacle to growth

6.2.2 Expansion of Public Services

The proposed Project site is currently served by all public service providers, including police protection services, fire prevention services, and public transit. Existing and planned facilities are sufficient to accommodate demand for services generated by the proposed Project. Expansion of public services beyond what is currently planned for, and encouragement of other new growth, would not result from implementation of the Project.

6.2.3 Encouragement/Facilitation of Economic Effects

During Project construction, a limited number of design, engineering, and construction-related jobs would be created, increasing economic activity. This would be a temporary situation, lasting until the proposed Project is completed. The proposed Project would increase the pool facilities from those of the former Belmont Pool and subsequently require an increase in staff over previous levels. However, because the uses under the proposed Project would be the same as to those associated with the former Belmont Pool, the increase in employment is not anticipated to result in an increase in employment at

a level that would create substantial new economic activity or require new housing. Therefore, the proposed Project would not facilitate economic effects that could result in other activities that could significantly affect the environment.

6.2.4 Precedent-Setting Action

The proposed Project is the replacement of the former Belmont Pool with a larger state-of-the-art aquatic facility on the same site designated as LUD No. 7, Mixed Use, and LUD No.11, Open Space and Parks, in an urban area. The proposed Project does not require a General Plan Amendment. Therefore, the proposed Project does not propose any precedent-setting actions that, if approved, would specifically allow or encourage other projects and resultant growth to occur.

6.3 SIGNIFICANT EFFECTS THAT CANNOT BE AVOIDED

Section 15126.2(b) of the State *CEQA Guidelines* requires that an EIR describe significant environmental impacts that cannot be avoided, including those effects that can be mitigated but not reduced to a less than significant level. Chapter 1.0, Executive Summary, of this document contains a detailed summary table that identifies the Project's environmental impacts, the proposed mitigation measures, and the level of significance of those impacts after mitigation. The following is a summary of the impacts that are considered significant, adverse, and unavoidable after all mitigation is applied. These impacts are also described in detail in Chapter 4.0, Existing Environmental Setting, Environmental Analysis, Impacts, and Mitigation Measures.

6.3.1 Inventory of Significant Unavoidable Adverse Impacts

As determined in the contents of this Draft EIR, implementation of the proposed project would not result in any significant and unavoidable adverse impacts. All potentially significant impacts have been effectively mitigated to a less than significant level.

7.0 MITIGATION, MONITORING, AND REPORTING PROGRAM

7.1 MITIGATION MONITORING REQUIREMENTS

Public Resources Code (PRC) Section 21081.6 (enacted by the passage of Assembly Bill 3180) mandates that the following requirements shall apply to all reporting or mitigation monitoring programs:

- The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes which have been required or incorporated into the project at the request of a responsible agency or a public agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the lead agency or a responsible agency, prepare and submit a proposed reporting or monitoring program.
- The lead agency shall specify the location and custodian of the documents or other material which constitute the record of proceedings upon which its decision is based.
- A public agency shall provide the measures to mitigate or avoid significant effects on the environment that are fully enforceable through permit conditions, agreements, or other measures. Conditions of project approval may be set forth in referenced documents which address required mitigation measures or in the case of the adoption of a plan, policy, regulation, or other project, by incorporating the mitigation measures into the plan, policy, regulation, or project design.
- Prior to the close of the public review period for a draft environmental impact report (EIR) or mitigated negative declaration (MND), a responsible agency, or a public agency having jurisdiction over natural resources affected by the project, shall either submit to the lead agency complete and detailed performance objectives for mitigation measures which would address the significant effects on the environment identified by the responsible agency or agency having jurisdiction over natural resources affected by the project, or refer the lead agency to appropriate, readily available guidelines or reference documents. Any mitigation measures submitted to a lead agency by a responsible agency or an agency having jurisdiction over natural resources affected by the project shall be limited to measures which mitigate impacts to resources which are subject to the statutory authority of, and definitions applicable to, that agency. Compliance or noncompliance by a responsible agency or agency having jurisdiction over natural resources affected by a project with that requirement shall not limit that authority of the responsible agency or agency having jurisdiction over natural resources affected by a project, or the authority of the lead agency, to approve, condition, or deny projects as provided by this division or any other provision of law.

7.2 MITIGATION MONITORING PROCEDURES

The mitigation monitoring and reporting program has been prepared in compliance with PRC Section 21081.6. It describes the requirements and procedures to be followed by the City of Long Beach (City) to ensure that all mitigation measures adopted as part of the proposed Belmont Pool Revitalization Project (proposed Project) will be carried out as described in this EIR.

Table 7.A lists each of the mitigation measures specified in this EIR and identifies the party or parties responsible for implementation and monitoring of each measure.

Table 7.A: Mitigation and Monitoring Reporting Program

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
4.1 Aesthetics		
<p>Mitigation Measure 4.1.1: Maintenance of Construction Barriers. Prior to issuance of any construction permits, the City of Long Beach Development Services Director, or designee, shall verify that construction plans include the following note: During construction, the Construction Contractor shall ensure, through appropriate postings and daily visual inspections, that no unauthorized materials are posted on any temporary construction barriers or temporary pedestrian walkways, and that any such temporary barriers and walkways are maintained in a visually attractive manner. In the event that unauthorized materials or markings are discovered on any temporary construction barrier or temporary pedestrian walkway, the Construction Contractor shall remove such items within 48 hours.</p>	<p>Construction Contractor/ City of Long Beach Development Services Director, or designee</p>	<p>Prior to issuance of any construction permits and ongoing during construction</p>
4.2 Air Quality		
<p>The proposed Project would not result in any potentially significant impacts to air quality. No mitigation is required.</p>		
4.3 Biology		
<p>Mitigation Measure 4.3.1: Migratory Bird Treaty Act. Tree and vegetation removal shall be restricted to outside the likely active nesting season (January 15 through September 1) for those bird species present or potentially occurring within the proposed Project area. That time period is inclusive of most other birds' nesting periods, thus maximizing avoidance of impacts to any nesting birds. If construction is proposed between January 15 and September 1, a qualified biologist familiar with local avian species and the requirements of the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code shall conduct a preconstruction survey for nesting birds no more than 3 days prior to construction. The survey shall include the entire area that will be disturbed. The results of the survey shall be recorded in a memorandum and submitted to the City of Long Beach (City) Parks, Recreation, and Marine Director within 48 hours. If the survey is positive, and the nesting species are subject to the MBTA or the California Fish and Game Code, the</p>	<p>City of Long Beach Parks, Recreation, and Marine Director or designee</p>	<p>No more than 3 days prior to commencement of grading activities, if construction is proposed between January 15 and August 31.</p>

Table 7.A: Mitigation and Monitoring Reporting Program

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>memorandum shall be submitted to the California Department of Fish and Wildlife (CDFW) to determine appropriate action. If nesting birds are present, a qualified biologist shall be retained to monitor the site during initial vegetation clearing and grading, as well as during other activities that would have the potential to disrupt nesting behavior. The monitor shall be empowered by the City to halt construction work in the vicinity of the nesting birds if the monitor believes the nest is at risk of failure or the birds are excessively disturbed.</p>		
<p>Mitigation Measure 4.3.2: Local Tree Removal Ordinances. Prior to the start of any demolition or construction activities, the City of Long Beach (City) Parks, Recreation, and Marine Director, or designee, shall obtain a tree removal permit from the City’s Director of Public Works. A City-approved Construction Plan shall be submitted with the permit to remove tree(s). The City approved Plan shall show that the existing City (parkway) tree has a direct impact on the design and function of the proposed Project. The City shall incur all removal costs, including site cleanup, make any necessary repair of hardscape damage, and replace the tree. The removed tree shall be replaced with an approved 15-gallon tree and payment of a fee that is equivalent to a City-approved 15-gallon tree.</p>	<p>City of Long Beach Parks, Recreation, and Marine Director, or designee</p>	<p>Prior to the start of any demolition or construction activities</p>
<p>4.4 Cultural Resources</p>		
<p>Mitigation Measure 4.4.1: Paleontological Resources Impact Mitigation Program. Prior to commencement of any grading or excavation activity on site, the City of Long Beach (City) Development Services Director, or designee, shall verify that a paleontologist has been retained on an on-call basis for all excavation from the surface to depths of 23 feet (ft) below the surface. Once a depth of 23 ft is reached, the paleontologist shall visit the site and determine if there is a potential for the sediments at this depth to contain paleontological resources.</p> <p>A paleontologist shall not be required on site if excavation is only</p>	<p>City of Long Beach Development Services Director, or designee</p>	<p>Prior to commencement of any grading or excavation activity on site</p>

Table 7.A: Mitigation and Monitoring Reporting Program

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>occurring in depths of less than 23 ft, unless there are discoveries at shallower depths that warrant the presence of a paleontological monitor. In the event that there are any unanticipated discoveries, the on-call paleontologist shall be called to the site to assess the find for significance, and if necessary, prepare a Paleontological Resources Impact Mitigation Program (PRIMP) as outlined below.</p> <p>If excavation will extend deeper than 23 ft, exclusive of pile-driving and vibro-replacement soil stabilization techniques, the paleontologist shall prepare a PRIMP for the proposed Project. The PRIMP should be consistent with the guidelines of the Society of Vertebrate Paleontologists (SVP, 1995 and 2010) and shall include but not be limited to the following:</p> <ul style="list-style-type: none"> • Attendance at the pre-grade conference or weekly tailgate meeting if the PRIMP is initiated after the commencement of grading, in order to explain the mitigation measures associated with the Project. • During construction excavation, a qualified vertebrate paleontological monitor shall initially be present on a full-time basis whenever excavation shall occur within the sediments that have a high paleontological sensitivity rating. Based on the significance of any recovered specimens, the qualified paleontologist may set up conditions that shall allow for monitoring to be scaled back to part-time as the Project progresses. However, if significant fossils begin to be recovered after monitoring has been scaled back, conditions shall also be specified that would allow increased monitoring as necessary. The monitor shall be equipped to salvage fossils and/or matrix samples as they are unearthed in order to avoid construction delays. The monitor shall be empowered to temporarily halt or divert equipment in the area of the find in 		

Table 7.A: Mitigation and Monitoring Reporting Program

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>order to allow removal of abundant or large specimens.</p> <ul style="list-style-type: none"> • The underlying sediments may contain abundant fossil remains that can only be recovered by a screening and picking matrix; therefore, these sediments shall occasionally be spot-screened through 1/8 to 1/20-inch mesh screens to determine whether microfossils exist. If microfossils are encountered, additional sediment samples (up to 6,000 pounds) shall be collected and processed through 1/20-inch mesh screens to recover additional fossils. Processing of large bulk samples is best accomplished at a designated location within the Project that shall be accessible throughout the Project duration but shall also be away from any proposed cut or fill areas. Processing is usually completed concurrently with construction, with the intent to have all processing completed before, or just after, Project completion. A small corner of a staging or equipment parking area is an ideal location. If water is not available, the location should be accessible for a water truck to occasionally fill containers with water. • Preparation of recovered specimens to a point of identification and permanent preservation. This includes the washing and picking of mass samples to recover small invertebrate and vertebrate fossils and the removal of surplus sediment from around larger specimens to reduce the volume of storage for the repository and the storage cost. • Identification and curation of specimens into a museum repository with permanent retrievable storage, such as the Natural History Museum of Los Angeles County (LACM). • Preparation of a report of findings with an appended itemized inventory of specimens. When submitted to the City Development Services Director, or designee, the report and 		

Table 7.A: Mitigation and Monitoring Reporting Program

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
inventory would signify completion of the program to mitigate impacts to paleontological resources.		
4.5 Geology and Soils		
<p>Mitigation Measure 4.5.1: Conformance with the Project Geotechnical Studies. All grading operations and construction shall be conducted in conformance with the recommendations included in the <i>Report of Preliminary Geotechnical Investigation for the Proposed Belmont Plaza Olympic Pool Revitalization Project</i>, prepared by MACTEC (April 14, 2009); the <i>Geotechnical Investigation for the Temporary Myrtha Pool and Associated Improvements, Belmont Plaza Revitalization</i>, prepared by GMU Geotechnical, Inc. (April 3, 2013); the <i>Preliminary Geotechnical Report for the Belmont Plaza Pool Rebuild-Revitalization</i> prepared by AESCO (April 24, 2014); and <i>Soil Corrosivity Evaluation for the Belmont Plaza Pool Facility Rebuild/Revitalization Project</i>, prepared by HDR Schiff (April 23, 2014), which together are referred to as the <i>Geotechnical Evaluations</i>. Design, grading, and construction shall be performed in accordance with the requirements of the City of Long Beach (City) Municipal Code (Title 18) and the California Building Code (CBC) applicable at the time of grading, appropriate local grading regulations, and the requirements of the Project geotechnical consultant as summarized in a final written report, subject to review and approval by the City’s Development Services Director, or designee, prior to commencement of grading activities.</p> <p>Specific requirements in the Final Geotechnical Report shall address:</p> <ol style="list-style-type: none"> 1. Seismic design considerations and requirements for structures and nonstructural components permanently attached to structures 	City of Long Beach Development Services Director, or designee	Prior to commencement of grading activities

Table 7.A: Mitigation and Monitoring Reporting Program

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p>2. Foundations including ground improvements (deep soil mixing and stone columns) and shallow foundation design</p> <p>3. Earthwork, including site preparation for structural areas (building pad) and sidewalks, pavements, and other flatwork areas; fill material; temporary excavations; and trench backfill</p> <p>4. Liquefaction</p> <p>5. Site drainage</p> <p>6. Slabs-on-grade and pavements</p> <p>7. Retaining walls</p> <p>Additional site testing and final design evaluation shall be conducted by the Project geotechnical consultant to refine and enhance these requirements, if necessary. The City shall require the Project geotechnical consultant to assess whether the requirements in that report need to be modified or refined to address any changes in the Project features that occur prior to the start of grading. If the Project geotechnical consultant identifies modifications or refinements to the requirements, the City shall require appropriate changes to the final Project design and specifications.</p> <p>Grading plan review shall also be conducted by the City’s Development Services Director, or designee, prior to the start of grading to verify that the requirements developed during the geotechnical design evaluation have been appropriately incorporated into the Project plans. Design, grading, and construction shall be conducted in accordance with the specifications of the Project geotechnical consultant as summarized in a final report based on the CBC applicable at the time of grading and building and the City Building Code. On-site inspection during</p>		

Table 7.A: Mitigation and Monitoring Reporting Program

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
grading shall be conducted by the Project geotechnical consultant and the City Building Official to ensure compliance with geotechnical specifications as incorporated into Project plans.		
<p>Mitigation Measure 4.5.2: Corrosive Soils. Prior to issuance of any building permits, the City of Long Beach Development Services Director, or designee, shall verify that structural design conforms to the requirements of the geotechnical study with regard to the protection of ferrous metals and copper that will come into contact with on-site soil. In addition, on-site inspections shall be conducted during construction by the Project geotechnical consultant and/or City Building Official to ensure compliance with geotechnical specifications as incorporated into Project plans.</p> <p>The measures specified in the geotechnical study for steel pipes, iron pipes, copper tubing, plastic and vitrified clay pipe, other pipes, concrete, post tensioning slabs, concrete piles, and steel piles shall be incorporated into the structural design and Project plans where ferrous metals (e.g., iron or steel) and/or copper may come into contact with on-site soils.</p>	City of Long Beach Development Services Director, or designee/Geotechnical Consultant or City Building Official	Prior to issuance of any building permits; inspections during project construction
4.6 Global Climate Change and Greenhouse Gas Emissions		
The proposed Project would not result in potentially significant impacts related to Greenhouse Gases. No mitigation is required.		
4.7 Hazards and Hazardous Resources		
<p>Mitigation Measure 4.7.1: Contingency Plan. Prior to issuance of any excavation or grading permits or activities, the City of Long Beach (City) Fire Department (LBFD), or designee, shall review and approve a contingency plan that addresses the potential to encounter on-site unknown hazards or hazardous substances during construction activities. The plan shall require that if construction workers encounter underground tanks, gases, odors, uncontained spills, or other unidentified substances, the contractor shall stop work, cordon off the affected area, and notify the LBFD. The LBFD responder shall determine the next steps regarding possible site evacuation, sampling, and disposal of</p>	City of Long Beach Fire Department, or designee	Prior to issuance of any excavation or grading permits or activities

Table 7.A: Mitigation and Monitoring Reporting Program

	Mitigation Measures	Responsible Party	Timing for Mitigation Measure
Mitigation Measure 4.7.2:	<p>the substance consistent with local, State, and federal regulations.</p> <p>Predemolition Surveys. Prior to commencement of demolition and/or construction activities, the City LBFD, or designee, shall verify that predemolition surveys for asbestos-containing materials (ACMs) and lead (including sampling and analysis of all suspected building materials) shall be performed. All inspections, surveys, and analyses shall be performed by appropriately licensed and qualified individuals in accordance with applicable regulations (i.e., American Society for Testing and Materials E 1527-05, and 40 Code of Federal Regulations [CFR], Subchapter R, Toxic Substances Control Act [TSCA], Part 716). If the predemolition surveys do not find ACMs or lead-based pipes (LBPs), the inspectors shall provide documentation of the inspection and its results to the City LBFD, or designee, to confirm that no further abatement actions are required.</p> <p>If the predemolition surveys find evidence of ACMs or lead, all such materials shall be removed, handled, and properly disposed of by appropriately licensed contractors according to all applicable regulations during demolition of structures (40 CFR, Subchapter R, TSCA, Parts 745, 761, and 763). Air monitoring shall be completed by appropriately licensed and qualified individuals in accordance with applicable regulations both to ensure adherence to applicable regulations (e.g., South Coast Air Quality Management District [SCAQMD]) and to provide safety to workers. The City shall provide documentation (e.g., all required waste manifests, sampling, and air monitoring analytical results) to the LBFD showing that abatement of any ACMs or lead identified in these structures has been completed in full compliance with all applicable regulations and approved by the appropriate regulatory agencies (40 CFR, Subchapter R, TSCA, Parts 716, 745, 761, 763, and 795 and California Code of Regulations Title 8, Article 2.6). An Operating</p>	City of Long Beach Fire Department, or designee	Prior to commencement of demolition and/or construction activities

Table 7.A: Mitigation and Monitoring Reporting Program

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
and Maintenance Plan shall be prepared for any ACM or lead to remain in place and shall be reviewed and approved by the Lbfd.		
4.8 Hydrology and Water Quality		
<p>Mitigation Measure 4.8.1: Construction General Permit. Prior to issuance of a grading permit, the City of Long Beach (City) shall obtain coverage for the proposed Project under the State Water Resources Control Board National Pollutant Discharge Elimination System <i>General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities</i> (Order No. 2009-0009-DWQ, Permit No. CAS000002), as amended by Order Nos. 2010-0004-DWQ and 2012-0006-DWQ (Construction General Permit), or subsequent issuance. For projects with a disturbed area of 5 or more acres, a Storm Water Pollution Prevention Plan (SWPPP) with construction Best Management Plans (BMPs) is required to be submitted to both the Los Angeles Regional Water Quality Control Board (RWQCB) and the City.</p> <p>The City shall provide the Waste Discharge Identification Numbers to the Development Services Director to demonstrate proof of coverage under the Construction General Permit. A SWPPP shall be prepared and implemented for the proposed Project in compliance with the requirements of the Construction General Permit. The SWPPP shall identify construction BMPs to be implemented to ensure that the potential for soil erosion and sedimentation is minimized and to control the discharge of pollutants in storm water runoff as a result of construction activities.</p>	City of Long Beach Development Services Director, or designee	Prior to issuance of a grading permit
<p>Mitigation Measure 4.8.2: Dewatering During Construction Activities. During project construction, the City of Long Beach Development Services Director, or designee, shall ensure that any dewatering activities during construction shall comply with the requirements of the <i>Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in</i></p>	City of Long Beach Development Services Director, or designee	Ongoing during any dewatering activities during project construction

Table 7.A: Mitigation and Monitoring Reporting Program

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
<p><i>Coastal Watersheds of Los Angeles and Ventura Counties</i> (Order No. R4-2013-0095, Permit No. CAG994004) (Groundwater Discharge Permit) or subsequent permit. This Groundwater Discharge Permit shall include submission of a Notice of Intent (NOI) for coverage under the permit to the Los Angeles RWQCB at least 45 days prior to the start of dewatering and compliance with all applicable provisions in the permit, including water sampling, analysis, and reporting of dewatering-related discharges. If dewatered groundwater cannot meet the discharge limitations specified in the Groundwater Discharge Permit, a permit shall be obtained from the Los Angeles County Sanitation District (LACSD) to discharge groundwater to the sewer per LACSD’s Wastewater Ordinance.</p>		
<p>Mitigation Measure 4.8.3: Standard Urban Stormwater Mitigation Plan. Prior to issuance of grading permits, the City shall submit a Final Standard Urban Stormwater Mitigation Plan (SUSMP) for the proposed Project to the Development Services Director for review and approval. Project-specific site Design, Source Control, and Treatment Control BMPs contained in the Final SUSMP shall be incorporated into final design. The BMPs shall be consistent with the requirements of the <i>Low Impact Development (LID) Best Management Practices (BMP) Design Manual</i>. Additionally, the BMPS shall be designed and maintained to target pollutants of concern and reduce runoff from the Project site. The SUSMP shall include an operations and maintenance plan for the prescribed Treatment Control BMPs to ensure their long-term performance.</p>	<p>City of Long Beach Development Services Director, or designee</p>	<p>Prior to issuance of grading permits</p>
<p>Mitigation Measure 4.8.4: Hydrology Reports. Prior to issuance of grading permits, the City shall submit a final hydrology report for the proposed Project to the Development Services Director, or designee, for review and approval. The hydrology report shall demonstrate, based on hydrologic calculations, that the proposed Project’s on-site storm conveyance and detention and infiltration facilities are designed in</p>	<p>City of Long Beach Development Services Director, or designee</p>	<p>Prior to issuance of grading permits</p>

Table 7.A: Mitigation and Monitoring Reporting Program

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
accordance with the requirement of the Los Angeles County Department of Public Works Hydrology Manual.		
Mitigation Measure 4.8.5: Floodplain Report. During final design, the Project engineer shall prepare and submit a floodplain/hydrology report to the City Development Services Director, or designee, to address any potential impacts to the floodplain and, if required, reduce those impacts. The report shall comply with City and Federal Emergency Management Agency (FEMA) regulations and shall not increase the base flood elevation by more than 1 foot. Detailed analysis shall be conducted to ensure that the Project design specifically addresses floodplain issues so that the proposed Project complies with local and FEMA regulations on floodplains.	Project Engineer/City of Long Beach Development Services Director, or designee	During final design
4.9 Land Use		
The proposed Project would not result in potentially significant impacts related to land use. No mitigation is required.		
4.10 Noise		
Mitigation Measure 4.10.1: Prior to issuance of the occupancy permit, the City of Long Beach’s (City) Development Services Director, or designee, shall verify that a sound engineer has designed the permanent and temporary sound systems such that the City’s exterior noise standards (daytime exterior noise level of 50 dBA L ₅₀) are not exceeded at the surrounding sensitive land uses. Measures capable of reducing the noise levels include, but are not limited to: <ul style="list-style-type: none"> • Reducing the source levels; • Reducing the speaker elevations; • Directing the speakers away from adjacent noise-sensitive land uses; and • Using highly directional speakers. 	City of Long Beach Development Services Director, or designee	Prior to issuance of the occupancy permit
Mitigation Measure 4.10.2: Prior to issuance of demolition or grading permits, the City of Long Beach’s (City) Development Services Director, or designee, shall verify that construction and grading plans include the following conditions to reduce potential construction noise impacts on nearby sensitive receptors:	City of Long Beach Development Services Director, or designee	Prior to issuance of demolition or grading permits

Table 7.A: Mitigation and Monitoring Reporting Program

Mitigation Measures	Responsible Party	Timing for Mitigation Measure	
<ul style="list-style-type: none"> • During all site excavation and grading, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers’ standards; • The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the Project site; • The construction contractor shall locate equipment staging to create the greatest distance between construction-related noise sources and noise-sensitive receptors nearest the Project site during all Project construction; • The construction contractor shall ensure that engine idling from construction equipment (i.e., bulldozers and haul trucks) is limited to a maximum of 5 minutes at any given time; and • The construction contractor shall ensure that all construction activities are scheduled to avoid operating several pieces of heavy equipment simultaneously. • Construction, drilling, repair, remodeling, alteration, or demolition work shall be limited to the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday, and 9:00 a.m. to 6:00 p.m. on Saturday. In accordance with City standards, no construction activities are permitted outside of these hours. 			
<p>Mitigation Measure 4.10.3:</p>	<p>Prior to issuance of a grading permit, the City of Long Beach Tidelands Capital Improvement Division shall hold a community preconstruction meeting in concert with the construction contractor to provide information to the public regarding the construction schedule. The construction schedule information shall include the duration of each construction activity and the specific location, days, frequency, and duration of the pile driving that will occur</p>	<p>City of Long Beach Tidelands Capital Improvement Division</p>	<p>Prior to issuance of a grading permit</p>

Table 7.A: Mitigation and Monitoring Reporting Program

Mitigation Measures	Responsible Party	Timing for Mitigation Measure	
<p>during each phase of the Project construction. Public notification of this meeting shall be undertaken in the same manner as the Notice of Availability mailings for this Draft Environmental Impact Report.</p>			
<p>4.11 Recreation</p>			
<p>With implementation of Mitigation Measure 4.12.2, as identified in the Transportation and Traffic section, short-term construction-related impacts on recreational resources would be less than significant.</p>			
<p>4.12 Transportation and Traffic</p>			
<p>Mitigation Measure 4.12.1:</p>	<p>Event Traffic Management Plan. In the event that a large special event (defined as more than 450 spectators) is held at Belmont Pool, the City of Long Beach (City) Parks and Recreation Director, or designee, shall develop an Event Traffic Management Plan for review and approval by the City Traffic Engineer. The plan shall be designed by a registered Traffic Engineer and shall address potential impacts to traffic circulation and the steps necessary to minimize potential impacts (e.g., active traffic management and/or off-site parking and shuttles) during the large special event.</p>	<p>City of Long Beach Parks and Recreation Department Director, or designee/City Traffic Engineer</p>	<p>Prior to any large special event (defined as more than 450 spectators)</p>
<p>Mitigation Measure 4.12.2:</p>	<p>Construction Traffic Management Plan. Prior to the issuance of any demolition permits, the City of Long Beach (City) Parks and Recreation Director, or designee, shall develop a Construction Traffic Management Plan for review and approval by the City Traffic Engineer. The plan shall be designed by a registered Traffic Engineer and shall address traffic control for any street closure, detour, or other disruption to traffic circulation and public transit routes and shall ensure that emergency vehicle access is maintained. The plan shall identify the routes that construction vehicles shall use to access the site, the hours of construction traffic, traffic controls and detours, and off-site staging areas. The plan shall also require that a minimum of one travel lane in each direction on Ocean Boulevard be kept open during construction activities. Access to Belmont Veterans' Memorial Pier, the Shoreline Beach Bike Path, and the beach shall be maintained at all times. The</p>	<p>City of Long Beach Parks and Recreation Director, or designee/City Traffic Engineer</p>	<p>Prior to the issuance of any demolition permits</p>

Table 7.A: Mitigation and Monitoring Reporting Program

Mitigation Measures	Responsible Party	Timing for Mitigation Measure
Construction Traffic Management Plan shall also require that access to the pier, the bike path, and the beach be kept open during construction activities. The plan shall also require the City to keep all haul routes clean and free of debris including, but not limited to, gravel and dirt		
4.13 Utilities and Service Systems		
With implementation of Mitigation Measures 4.8.2 and 4.8.4, as identified in the Hydrology and Water Quality Section, impacts with respect to hydrology and water quality would be less than significant.		

8.0 LIST OF PREPARERS

8.1 CITY OF LONG BEACH

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Amy Bodek, Director of Development Services

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Eric Widstrand, Traffic Engineer

8.2 CONSULTANT TEAM

The following individuals were involved in the preparation of the EIR and/or technical reports in support of the EIR. The nature of their involvement is summarized below.

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Preparation of the EIR and Air Quality, Archaeological, Biologic Resources, Cultural Resources, Greenhouse Gas Emissions, Noise, Paleontological, and Traffic Analyses

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