



## VI. OTHER ENVIRONMENTAL CONSIDERATIONS

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### A. SIGNIFICANT UNAVOIDABLE IMPACTS

Section 15126.2(b) of the CEQA Guidelines requires an EIR to describe significant environmental impacts that cannot be avoided and impacts that can be mitigated but not reduced to a less than significant level. The following is a summary of impacts associated with the Golden Shore Master Plan Project that were concluded to be significant and unavoidable. The following impacts are described in detail in Section IV, Environmental Impact Analysis of this Draft EIR. Several of the significant and unavoidable impacts of the project are primarily related to short-term construction activities.

**Air Quality:** Short-term construction activities associated with the implementation of the proposed project's various development options would result in significant unavoidable impacts relative to local and regional construction pollutant emissions, even with the implementation of applicable mitigation measures. Accordingly, given the exceedance of PM<sub>10</sub> emissions thresholds for localized impacts, the project would be inconsistent with the Air Quality Management Plan, which is also considered a significant unavoidable impact. Additionally, construction-related impacts to global climate change would be significant and unavoidable, and operational global climate change impacts would remain significant and unavoidable at the project and cumulative level despite implementation of applicable mitigation measures.

**Noise:** Noise generation associated with construction activities, most notably pile-driving activities associated with foundation construction, would result in significant unavoidable impacts to off-site sensitive receptors, despite the implementation of applicable mitigation measures.

**Traffic and Parking:** Project-related traffic impacts at five study area intersections, including one CMP intersection, would exceed level of service thresholds and therefore result in significant traffic impacts at these locations. Although recommended mitigation measures would serve to address these significant intersection impacts, four of the five recommended improvements may not be feasible due to the necessity to remove existing on-street parking to implement the improvements. As such, due to the uncertainty regarding the feasibility of mitigation measures at these locations, significant unavoidable impacts to the following intersections would occur:

- Alamitos Avenue at 7<sup>th</sup> Street

- Alamitos Avenue at 4<sup>th</sup> Street
- Alamitos Avenue at Broadway; and
- Pine Avenue/Ocean Boulevard

**B. REASONS WHY THE PROJECT IS BEING PROPOSED, NOTWITHSTANDING SIGNIFICANT UNAVOIDABLE IMPACTS**

Section 15126.2(b) also requires a description of the reasons why the project is being proposed, notwithstanding significant unavoidable impacts associated with the project. The reasons why this project has been proposed are grounded in a comprehensive listing of project objectives included in Section II, Project Description, of this Draft EIR. The underlying purpose of the proposed project is to create a world-class development project worthy of international recognition for its landmark design.

The project would provide much needed housing opportunities for those who work in the community. The project site is conveniently located immediately near many employment opportunities and in close proximity of the major employment centers in the City (World Trade Center and the Arco Center). The project would create housing opportunities within walking distance of numerous jobs and transit options. In doing so, the project would be consistent with the goals of the community in minimizing traffic impacts and air quality impacts, as well as meeting housing needs. Furthermore, the proposed mix of uses would enhance the walkability of the neighborhood and foster a pedestrian-friendly environment.

Several alternatives to the proposed project were considered in Section V, Alternatives, of this Draft EIR. Among those alternatives, no feasible alternative was identified that would reduce all of the significant unavoidable effects of the proposed project. In addition, none of the alternatives would achieve the objectives to the extent of the project. Furthermore, all but three of the significant unavoidable impacts that are anticipated to result from the proposed project are short-term construction effects. Significant unavoidable impacts from project operation would result from operational traffic generation, including intersection impacts, regional operational air quality emissions impacts, and project-level greenhouse gas emissions. Finally, since the No Project/No Build Alternative would not meet the underlying purpose of the project, it is not considered a feasible development alternative.

In addition to the environmental reasons why the project has been proposed as cited above, there are economic and urban planning reasons in support of the proposed development. The Golden Shore Master Plan would strengthen Long Beach's competitive position as a hub for regional commerce and activity by offering an integration of services and amenities, and would

generate additional annual sales tax revenues to the City. It would also provide high-density housing (1,370 residential units under the Residential Option and 1,110 residential units under the Hotel Options) in order to support the existing employment hub. The project would also be consistent with the existing and expected scale and massing within the project vicinity. Finally, placing office, commercial/retail, residential, and possibly hotel uses in a mixed-use urban setting designed to accommodate the retail and open space needs of employment and residential uses would support objectives for a livable, walkable, and diverse district.

### C. SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

According to Section 15126.2(c) of the CEQA Guidelines, an EIR is required to evaluate significant irreversible environmental changes that would be caused by implementation of the proposed Project. As stated in CEQA Guidelines Section 15126.2(c):

*[u]ses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irrecoverable commitments of resources should be evaluated to assure that such current consumption is justified.*

The project would necessarily consume limited, slowly renewable and non-renewable resources. This consumption would occur during the construction phase of the project and would continue throughout its operational lifetime. Project development would require a commitment of resources that would include: (1) building materials, (2) fuel and operational materials/resources, and (3) the transportation of goods and people to and from the project site. Construction would require the use and consumption of non-replenishable or non-renewable resources, such as: certain types of lumber and other forest products, raw materials in steel, metals such as copper and lead, aggregate materials such as sand and stone used in concrete and asphalt, petrochemical construction materials such as plastics, and water. Construction vehicles and equipment, and the transportation of goods and people to and from the project site would also use nonrenewable fossil fuels such as gasoline and oil.

Project operation would continue to expend similar nonrenewable resources that are currently consumed within the City and on-site. These include energy resources such as electricity, petroleum-based fuels, fossil fuels, and water. Energy resources would be used for heating and cooling buildings, transportation within the project site, and building lighting. Fossil

fuels are the primary energy source for project construction and operation. This existing, finite energy source would thus, be incrementally reduced. Under Title 24, Part 6 of the California Code of Regulation, conservation practices limiting the amount of energy consumed by the project is required during operation. Furthermore, the City guidelines would also require the project to energy efficient planning and construction. Despite conservation practices and guidelines in energy conservation, commitment to the use of the nonrenewable resources would be long-term.

Limited use of potentially hazardous materials such as typical cleaning agents and pesticides for landscaping would be used and contained on-site. These hazardous materials would be used, handled, stored, and disposed of in accordance with manufacturer's instructions and applicable government regulations and standards. Compliance with these regulations and standards would serve to protect against significant and irreversible environmental change resulting from the accidental release of hazardous materials. In addition, demolition activities would comply with regulatory requirements to ensure that asbestos and lead-based paints are not released into the environment. Compliance with such regulations would serve to protect against a significant and irreversible environmental change resulting from the accidental release of hazardous materials. Similarly, mitigation has been included to address any hazardous materials discovered construction.

Project construction and operation would be committed to the use of slowly renewable and nonrenewable resources and would limit the availability of these resources and the project's building site for future generations or for other uses during the life of the project. However, the continued use of such resources would be on a relatively small scale and consistent with regional and local urban design and development goals for the area. As a result, the nonrenewable resources would not result in significant irreversible changes to the environment.

#### **D. GROWTH-INDUCING IMPACTS**

Section 15126.2(d) of the CEQA Guidelines requires an EIR to discuss the ways the proposed project could foster economic or population growth or the construction of additional housing, directly or indirectly, in the surrounding environment. Growth-inducing impacts include the removal of obstacles to population growth (e.g., the expansion of a wastewater treatment plant allowing more development in a service area) and the development and construction of new service facilities that could significantly effect the environment individually or cumulatively. In addition, growth must not be assumed as beneficial, detrimental, or of little significance to the environment.

## 1. Project Characteristics

The project involves the redevelopment of a site that is located in a highly urban setting. The existing office and commercial buildings currently located on-site would be demolished and replaced with office, commercial/retail, residential, and possibly hotel uses. The Residential Option would include approximately 340,000 square feet of office uses, 28,000 square feet of retail uses, 1,370 residential units, and 344,000 square feet of open space. The Hotel Options would include approximately 340,000 square feet of office uses, 27,000 square feet of retail uses, a 400-room hotel including a 27,000 square foot restaurant/banquet hall, 1,110 residential units, and 344,000 square feet of open space.

## 2. Economic Growth

The Residential Option would result in approximately 838 project-generated employees and approximately 3,973 residents. The Hotel Options would result in approximately 1,339 project-generated employees and approximately 3,219 residents. The projected employment and population growth that would occur under the Residential Option or the Hotel Options would not exceed the established SCAG regional forecast for the Gateway Cities COG or the City of Long Beach.

While this increase in employment may indirectly bring new residents into the area, the increase in population and the potential need for housing and associated services as a result of the increase in employment is not considered significant. A number of the prospective employees are likely to already reside in the general area, and for those who do not that might choose to relocate in the City or nearby, there are housing opportunities available. The project is an in-fill development within an existing urban fabric. As a result, substantial amounts of unanticipated off-site regional growth would not be required to absorb an unbalanced fraction of unsatisfied project demand for employment.

Project-generated residents and employees may produce a demand for goods, services, or facilities not directly provided or satisfied by the project, which could indirectly induce growth necessary to accommodate this demand off-site. The project's on-site uses would be occupied daily and/or utilized by its residents, employees, guests, and a varying number of patrons. This new population would be expected to generate demand for public services, including fire and police protection, school, recreation, and library facilities. The off-site expansion to accommodate project service demand would thus, be considered indirectly growth-inducing. However, off-site expansions of public services would be proportionate to demands for public services and the project (Residential Option and Hotel Options) would provide payment of City-required fees and would result in an increase in the City's tax-base for the agencies to address these issues. As such, the project demand for public services would not be growth-inducing.

Project population would also generate new demand for secondary services, including regional or specialty retail, restaurant or food delivery, and recreation and entertainment, as well as services and suppliers to support the new residents. Therefore, the increase in demand of secondary services, in combination with any existing unmet demand, may induce new sources of supply if warranted by collective demand. However, the project's contribution to growth-inducement of secondary services is expected to be limited. Therefore, the project would not foster economic or population growth in the surrounding area in a manner that is growth-inducing.

### **3. Removal of an Impediment to Growth**

The project site is located in a very urbanized area where adequate infrastructure is in place to serve the existing demand. The project would not require new infrastructure or an extension of the current infrastructure (e.g., roads and utilities), and community service facilities (e.g., police, fire, schools, and libraries). In fact, the analyses contained in Chapter IV of this EIR conclude that the Residential Option and Hotel Options would result in no impacts or less than significant impacts with regard to infrastructure and services. Therefore, the project would not require the expansion of infrastructure that would extend beyond the needs of the project and therefore, would not induce off-site population growth.

In other words, the project would not result in the removal of an impediment to growth, such as a lack of infrastructure. The project would not provide new access to an area that is undeveloped since the site is located in an urban area. The project does not include any new roadways that would allow development in an undeveloped area. In addition, the project is the redevelopment of an underutilized site and is infill development. As such, the project would not establish any essential public services that do not exist, which would allow growth to occur that is not already anticipated in the region.

### **4. Development or Encroachment in an Isolated Open Space**

Development can be considered growth inducing when it is not contiguous to existing urban development and it introduces development into open space areas. The proposed project site is situated in an urbanized area that is currently developed. Although the project would increase the existing pattern of development, the Residential Option and Hotel Options would not introduce development into an undeveloped or open space area.

### **5. Precedent Setting Action**

As identified in Section II, Project Description, of this Draft EIR, the project would require an amendment of the Long Beach Downtown Shoreline Planned Development (PD-6),

Subarea 1 and an amendment of the Long Beach Local Coastal Program regarding designated land use in Subarea 1 of PD-6. However, as concluded in Section IV.F, Land Use and Planning of this Draft EIR, with City Council approval of the amendments, the project would be consistent with the land use standards and would not result in any precedent setting action.

## **6. Conclusion**

In conclusion, development of the Residential Option or the Hotel Options would not be considered growth-inducing because neither option would cause a progression of growth beyond the project itself. Implementation of the project would, both directly and indirectly, contribute to the growth of the area surrounding the site. However, as a development project occurring in an urban and generally built out area, the Residential Option and the Hotel Options would result in beneficial impacts related to growth. Both the Residential Option and the Hotel Options would expand the City's commercial base, would improve the City's tax base, and would increase housing opportunities, all of which would be beneficial impacts.

## **E. POTENTIAL SECONDARY EFFECTS**

Section 15126.4(a)(1)(D) of the CEQA Guidelines requires that "If a mitigation measure would cause one or more significant effects in addition to those that would be caused by the project as proposed, the effects of the mitigation measure shall be discussed but in less detail than the significant effects of the project as proposed." With regard to this section of the CEQA Guidelines, the potential impacts that could result with the implementation of each mitigation measure proposed for the project were evaluated. The following provides a discussion of the potential secondary impacts that could occur as a result of the implementation of the project mitigation measures, listed by environmental issue area. Only those sections that contain mitigation measures are addressed.

### **1. Aesthetics (See Section IV.A. of this Draft EIR)**

#### **a. Visual Quality/Views**

Mitigation Measure A-1 requires that temporary fencing with screening material be used to buffer views of construction equipment and materials. Implementation of this mitigation measure would obstruct views through the project site. However, the screening material would prevent views of the construction equipment and materials and therefore, would enhance the view of the project site during construction activities. This mitigation measure would be implemented wholly on-site and would result in beneficial off-site impacts with respect to views. Thus, no secondary impacts would occur.

**b. Light, Glare, and Shading**

Mitigation Measure A-2 requires that all new street and pedestrian lighting be shielded and directed away from any light-sensitive off-site uses. Mitigation Measure A-3 requires that Architectural lighting shall be directed onto the building surfaces and have low reflectivity to minimize glare and limit light onto adjacent properties. These mitigation measures would be implemented wholly on-site and would ensure light and glare effects of the proposed project would be reduced to a less than significant level. Therefore, no secondary impacts would occur.

**2. Air Quality (See Section IV.B. of this Draft EIR)**

With regard to operational emissions, Mitigation Measures B-7 and B-8 would serve to reduce significant regional operational impacts. In addition, since the project is located near major sources of TACs (Port and Freeway), Mitigation Measure B-9 is provided to reduce potential health risks to on-site sensitive receptors. In order to address potential impacts related to pedestrian wind effects, Mitigation Measures B-11 through B-14 are also provided. The recommended mitigation measures would serve to reduce air pollutant emissions, water and energy use, and would reduce on-site project-specific wind effects. As such, no secondary impacts would occur.

**3. Cultural Resources (See Section IV.C. of this Draft EIR)****a. Paleontological Resources**

Mitigation Measures C-1 through C-6 relate to paleontological resources. The mitigation measures generally require that a paleontologist monitors excavation activities. In the event that resources are discovered, the resources will be collected and preserved, as appropriate. It should be noted that excavation activities would occur regardless of the identification of any paleontological resources and thus, would not result in any physical changes. Therefore, implementation of Mitigation Measures C-1 through C-6 would not result in adverse secondary impacts.

**b. Archaeological and Native American Resources**

Mitigation Measures C-7 through C-14 relate to archaeological and native American Resources. Similarly, these mitigation measures require that an archaeological and Native American monitor be present during excavation activities. In the event that such resources are discovered during construction activities, such resources should be collected, preserved, and documented, as appropriate. Mitigation Measure C-14 specifically requires that if human remains are encountered unexpectedly during construction excavation and grading activities no further disturbance occur until the County Coroner has made the necessary findings as to origin

and disposition pursuant to PRC Section 5097.98. Implementation of Mitigation Measures C-7 through C-14 would not result in adverse secondary impacts.

#### **4. Hydrology and Water Quality (See Section IV.E. of this Draft EIR)**

##### **a. Hydrology**

Development of the proposed project will not result in significant hydrology impacts and therefore, no mitigation measures are required. As such, no potential secondary effects would result.

##### **b. Water Quality**

Mitigation Measure E-1 requires that the project comply with NPDES permit requirements for water discharged during mass grading and backbone infrastructure construction activities. As part of these requirements, a SWPPP and monitoring plan will be developed and implemented that identifies appropriate BMPs to reduce and/or to eliminate pollutant loadings to storm water runoff. Mitigation Measure E-2 requires that each of the development portions of the project provide its own SWPPP documenting how it will implement the appropriate BMPs. The construction impacts associated with development of the BMPs has already been analyzed within this Draft EIR. The subsequent effect of Mitigation Measures E-1 and E-2 would improve water quality and therefore, result in a beneficial impact. Similarly, Mitigation Measure E-3 requires similar implementation of BMPs during the operational phases of the project. As such, implementation of these mitigation measures would not result in physical changes that would result in secondary effects.

#### **5. Noise (See Section IV.G. of this Draft EIR)**

Mitigation Measures G-1 through G-4 require that steps be taken by the construction contractor(s) to minimize noise generation from equipment operation during construction activities. Mitigation Measures G-5 and G-6 require additional design-specific studies by a qualified acoustical engineer to evaluate design-specific noise impacts once more detailed building designs for the various project phases are available. As such, implementation of these mitigation measures would not result in physical changes that would result in secondary effects.

## **6. Public Services (See Section IV.H. of this Draft EIR)**

### **a. Fire Protection**

Mitigation Measure H.1-1 requires that the Applicant consult with the Long Beach Fire Department and incorporate fire prevention and suppression features and other life-saving equipment (e.g., defibrillators) appropriate to the design of the project. Mitigation Measure H.1-2 also requires that the project complies with all applicable State and local codes and ordinances. In addition, Mitigation Measure H.1-3 requires that prior to the issuance of building permits, project building plans including a plot plan and floor plan of the buildings be submitted for approval by the Long Beach Fire Department. These are procedural items that would not have any physical environmental impacts and would ensure fire protection safety. Therefore, these mitigation measures would have a beneficial impact related to fire protection and would not result in secondary impacts.

## **7. Traffic and Parking (See Section IV.J. of this Draft EIR)**

Mitigation measures J-1 through J-6 require improvements to five local intersections in the project study area, at signalization of the project's main site access point on Golden Shore. These improvements include re-striping and lane configurations that, if implemented, would result in temporary traffic impacts during construction activities at these locations, but would ultimately serve to improve traffic flow and circulation in the project area. As such, these improvements would have an overall beneficial impact to traffic, and therefore no secondary impacts would occur.

## **8. Utilities and Service Systems (See Section IV.K. of this Draft EIR)**

### **a. Water Supply**

Mitigation Measure K.1-1 requires water conservation features to be incorporated as part of the project including; high efficiency toilets, high efficiency urinals in commercial uses, high efficiency clothes washers, kitchen faucet aerators, bathroom faucet aerators, and low-flow shower heads in the residential units. In addition, Mitigation Measure K.1-2 requires low flow landscaping irrigation and Mitigation Measure K.1-3 requires that a minimum of 25 percent of the landscaping be drought tolerant. All of these measures are administrative and would not result in physical environmental changes. Instead, they would result in a beneficial impact to water supply and as such, there would not be any secondary impacts.

**b. Solid Waste**

Mitigation Measure K.2-1 requires that the Applicant provide a copy of the receipt or contract indicating that the construction contractor will only contract for waste disposal services with a company that recycles demolition and construction related wastes. While this would require additional trips by a recycler or hauler, as indicated in Section IV.J., Traffic and Parking, of this Draft EIR, construction-related traffic would not have a significant impact on surrounding roadways. Mitigation Measure K.2-2 requires the construction contractor to provide temporary waste separation bins on-site during demolition and construction. As concluded in this Section of the Draft EIR, there would not be a significant impact in regards to recycling facilities able to accommodate construction waste and debris. Thus, there would be no secondary effects with implementation of these mitigation measures.

Mitigation Measure K.2-3 stipulates that proposed project include recycling bins at appropriate locations to promote recycling of paper, metal, glass, and other recyclable material and Mitigation Measure K.2-4 requires that new homeowners/tenants be provided with educational materials on the proper management and disposal of household hazardous waste, in accordance with educational materials made available by the County of Los Angeles Department of Public Works. These are administrative actions that would not result in impacts to the physical environment but would only reduce the amount of solid waste going to landfills. Therefore, there would be no secondary impacts with implementation of these mitigation measures.

**F. EFFECTS FOUND NOT TO BE SIGNIFICANT**

Section 15128 of the CEQA Guidelines states that an EIR shall contain a brief statement indicating reasons that various possible significant effects of a project were determined not to be significant and not discussed in detail in the Draft EIR. An Initial Study was prepared for the project and is included in Appendix A of this Draft EIR. The Initial Study provides a detailed discussion of the potential environmental impact areas and the reasons that each topical area is or is not analyzed further in the Draft EIR. The City of Long Beach determined that the project would not result in potentially significant impacts related to Aesthetics (scenic resources), Agricultural Resources, Air Quality (odors), Biological Resources, Cultural Resources (historic resources), Geology and Soils (surface fault rupture, landslides, alternative wastewater systems), Hazards and Hazardous Materials, Hydrology and Water Quality (groundwater recharge, flooding, seiche, tsunami, mudflows), Land Use and Planning (physical division of a community or conflicts with habitat conservation plans), Mineral Resources, Noise (excessive noise from public airport or private airstrip), Population and Housing (population or housing displacement), Transportation and Circulation (air traffic patterns), and Utilities and Service Systems (wastewater, electricity, and natural gas).

## **1. Aesthetics**

The project site is currently developed with three office buildings and associated parking structures. No valued natural features (i.e., rock outcroppings), or historic buildings exist within the site, and landscaping is limited to limited areas of ornamental trees and vegetation. Thus, development of the project would not have a significant impact on scenic historic resources or any on-site natural or aesthetic features. Furthermore, the project site is not located along any scenic highways as defined by the City's General Plan. Therefore, the proposed project (Residential Option, Hotel Option A, and Hotel Option B) would have no impact relative to scenic resources within a City-designated scenic highway. Please refer to Section IV.A of this Draft EIR for further discussion of project-related impacts to aesthetics.

## **2. Agricultural Resources**

The project site has not been mapped as Prime Farmland, Unique Farmland, or Farmland of Statewide importance pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. Therefore, the proposed project (Residential Option, Hotel Option A, and Hotel Option B) would not result in impacts to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Furthermore, the projects site is a developed Planned Development site (PD-6, Subarea 1) and no portions of the project site are enrolled in a Williamson Act contract. Thus, the development of the proposed project (Residential Option, Hotel Option A, and Hotel Option B) would not result in a conflict relative to existing zoning for agricultural use or with Williamson Act contracts. Lastly, no agricultural resources or operations exist on the project site or on adjacent properties. The project site and the surrounding area are fully developed with urban land uses. Thus, the proposed project (Residential Option, Hotel Option A, and Hotel Option B) would have no impact associated with the conversion of any farmland to non-agricultural use.

## **3. Air Quality**

As identified in the Initial Study, the proposed project would involve the development of commercial uses, residential units, community space, and associated parking, and potentially hotel uses, and would not introduce any major odor-producing uses that would have the potential to affect a substantial number of people. However, since the project could result in an increase in air emissions from construction activities, vehicle trips, and stationary sources, this issue is addressed in this EIR. Please refer to Section IV.B of this Draft EIR for further discussion of project-related air quality impacts.

#### **4. Biological Resources**

The project site is located in the midst of a large urbanized area and is currently developed with buildings, surface parking areas, and limited ornamental landscaping. Given the urbanized nature of the project area and the fact that the project site has already been disturbed, the likelihood of the presence of any candidate, sensitive, or special status species identified in local or regional plans, policies, or regulations by the California Department of Fish and Game (CDFG) or the U.S. Fish and Wildlife Service (USFWS) is remote. Furthermore, there is no riparian habitat or other sensitive natural communities existing on the site as identified in the City or regional plans or in regulations by CDFG or USFWS. In addition, no Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plans apply to the project site. There are no federally protected waters or wetlands, as defined by Section 404 of the Clean Water Act, existing on or in the vicinity of the site. Given the intensity and the extent of the urban environment in which the site is located, there are no locally established native habitats that may be expected to connect with migratory wildlife corridors existing, within or adjacent to the project site or provide nesting or forging habitat for native resident or migratory wildlife species. Additionally, there is no body of water existing on or in the immediate vicinity of the project site that serves as natural habitat in which fish could exist. Native or natural vegetation and landmark or heritage trees that are subject to preservation policies or regulations do not occur within the project site. Any street trees removed for project development would be replaced in accordance with City standards, and the project would provide landscaping in accordance with City of Long Beach Municipal Code (LBMC) requirements that would offset the loss of trees and open space landscaping. Therefore, the project would not conflict with any local policies or ordinances protecting biological resources. Based on all of the above, the proposed project (Residential Option, Hotel Option A, and Hotel Option B) would have no impact on biological resources.

#### **5. Cultural Resources**

##### **(a) Historical**

The project site is currently developed with buildings and parking structures. There are no historical resources within or adjacent to the project site that would be directly affected by the project. Results of a cultural resources records search conducted through the California Historical Resources Information System South Central Coastal Information Center (CHRIS-SCCIC) at California State University, Fullerton, indicate that several historical properties are

located within a half-mile radius of the project site, including the City of Long Beach Drake Park/Willmore City Historic Landmark District (Willmore District).<sup>1</sup>

The approximate boundaries of the Willmore District extend from Park Court on the east, Loma Vista Drive to the north, 4th Street on the south, and an irregular boundary to the west that includes Loma Vista.<sup>2</sup> The nearest portion of the Willmore District to the project site is along the southern margin of 4th Street, approximately three city block-lengths to the north of the project site. Several additional historic properties have been documented along Daisy Avenue, 3rd Street, Broadway, Golden Avenue, and Chestnut Avenue. These properties are listed in the Cultural Resources Survey provided in Appendix A of this Initial Study. Due to intervening development and the distance between the project site and the Willmore District and other historical properties, the proposed project would not have a direct impact on local historic resources.

Many of the project's proposed buildings, under either development option, are similar in height or higher than many existing high-rise buildings in the downtown area and immediate project vicinity. However, the massing and form of the proposed buildings would not represent a significant departure from the high density, high-rise character of existing development located along Ocean Boulevard to the south of the Willmore District and known historical buildings. As the proposed project would not affect the character of the surrounding area with respect to the historical context of the area and the project site does not contain and is not adjacent to historical resources, no substantial adverse change in the significance of a historical resource under Section 15064.5 of the CEQA Guidelines would occur. Therefore, further analysis of historic resources in an EIR is not required.

However, since the project could result in potential impacts to archaeological, paleontological and Native American resources, this issue is addressed in this EIR. Please refer to Section IV.C of this Draft EIR for further discussion of project-related impacts to archaeological, paleontological and Native American resources.

## 6. Geology and Soils

Fault rupture is defined as the displacement that occurs along the surface of a fault during an earthquake. Based on criteria established by the California Geological Survey (CGS), faults

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<sup>1</sup> PCR Services Corporation, *Results of CHRIS-SCCIC Records Search, Broadway and Maine Project, Long Beach, March 22, 2007.*

<sup>2</sup> *Detailed description of Willmore District boundaries is given in City of Long Beach Ordinance No. C-7538, <http://www.longbeach.gov/civica/filebank/blobdload.asp?BlobID=8766>, accessed November 19, 2008.*

can be classified as active, potentially active, or inactive.<sup>3</sup> Active faults are those having historically produced earthquakes or shown evidence of movement within the past 11,000 years (during the Holocene Epoch).<sup>4</sup> Potentially active faults have demonstrated displacement within the last 1.6 million years (during the Pleistocene Epoch), but do not displace Holocene Strata. Inactive faults do not exhibit displacement younger than 1.6 million years before the present. In addition, there are buried thrust faults, which are low angle reverse faults with no surface exposure. Due to their buried nature, the existence of buried thrust faults is usually not known until they produce an earthquake.

The seismically active Southern California region is crossed by numerous active and potentially active faults and is underlain by several blind thrust faults. Alquist-Priolo Earthquake Fault Zones (formerly Special Study Zones) have been established throughout California by CGS. These zones, which extend from 200 to 500 feet on each side of a known active fault, identify areas where potential surface rupture along an active fault could prove hazardous and identify where special studies are required to characterize hazards to habitable structures.

The project site is not located within an established Alquist-Priolo Fault zone. The nearest active fault to the project site is the Newport Inglewood Fault Zone, located approximately 2.9 miles to the northwest.<sup>5</sup> Active faults with the potential for surface rupture are not known to be located beneath the project site. Therefore, the potential to expose people to impacts from fault rupture resulting from seismic activity during the design life of the buildings is considered less than significant.

The project site is not identified as an area of slope instability in the General Plan Seismic Element. Landslides generally occur in loosely consolidated, wet soil and/or rock on steep sloping terrain exposed to the effects of water. The project site is characterized by relatively flat topography and is entirely developed, which reduces direct exposure to water. The surrounding area is characterized by a gently sloping topography that is also almost entirely developed with paved surfaces. As steep hillsides are not present on-site or in the project vicinity, impacts associated with landslides would be less than significant.

Expansive soil is defined as soil that expands to a significant degree upon wetting and shrinks upon drying. Generally, expansive soils contain a high percentage of clay particles. The natural soils in the area consist of primarily of river and coastal alluvium, containing high levels

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<sup>3</sup> *The California Geological Survey was formerly known as the Division of Mines and Geology of the California Department of Conservation.*

<sup>4</sup> *California Department of Conservation, California Geologic Survey.*

<sup>5</sup> *City of Long Beach General Plan, Seismic Safety Element, October 1988.*

of gravel and sand, which, as defined in Table 18-1-B of the Uniform Building Code are not considered to be expansive. Thus, impacts would be less than significant.

The project site is located in a fully urbanized area served by existing wastewater infrastructure and no septic tanks or alternative wastewater disposal systems would be required. Therefore, the project would not result in impacts related to the ability of soils to support septic tanks or alternative wastewater disposal systems. No impacts would occur.

However, since the project could result in potential impacts regarding ground shaking, liquefaction, soil erosion/loss of topsoil, and landslides or lateral spreading, this issue is addressed in this EIR. Please refer to Section IV.D of this Draft EIR for further discussion of project-related impacts regarding geology and soils.

## **7. Hazards and Hazardous Materials**

The type and amount of hazardous materials to be used for the project would be typical of those used for residential and commercial developments. Specifically, operation of the proposed uses would involve the use and storage of small quantities of potentially hazardous materials in the form of cleaning solvents, painting supplies, pesticides for landscaping, and petroleum products. Construction of the project could require the temporary use of potentially hazardous materials, including vehicle fuels, oils, and transmission fluids. However, all potentially hazardous materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Any associated risk would be adequately reduced to a less than significant level through compliance with these standards and regulations. Therefore, impacts associated with the types of hazardous materials used routinely in the construction and operation of the project would be less than significant.

The project site and surrounding area historically have been developed with a variety of urban uses. The potential exists that existing on-site uses may contain asbestos-containing materials (ACM) and/or lead-based paint that may be released during demolition activities. ACM, consisting of microscopic fibers, was widely used historically in the building industry for a variety of uses, including acoustic and thermal insulation and fireproofing. Despite its useful qualities, asbestos is associated with lung diseases caused by the inhalation of airborne asbestos fibers. Asbestos becomes a hazard if the fibers separate and become airborne. Given the age of the existing structures, asbestos is not expected to occur on-site. However, any ACM encountered prior to or during demolition would be removed in compliance with South Coast Air Quality Management District's (SCAQMD) Rule 1403, as well as other applicable State and federal rules and regulations. Therefore, with compliance with Rule 1403, potentially hazardous impacts associated with ACM would be reduced to a less than significant level.

Lead is a naturally occurring element and heavy metal that can cause adverse health effects, especially on children. Lead was widely used as a major ingredient in most interior and exterior oil-based paints prior to 1950. Given the age of the existing structures, lead-based paint (LBP) is not expected to occur on-site. However, if lead based paint is found, the Applicant shall follow all procedural requirements and regulations, including California Code of Regulations, Title 8, Section 1532.1, for proper removal and disposal of the lead based paint. Therefore, impacts associated with hazards to the public or environment from the release of hazardous materials, including ACM and LBP, would be less than significant.

The project site is located within one-quarter mile of Cesar Chavez Elementary School, a K-5 school located on the east side of Maine Avenue, between Broadway and 3rd Street. The school site is separated from the project site by Santa Cruz Park, sections of the I-710 terminus/interchange, and the Hilton Hotel. The potential exists for hazardous materials to be encountered during demolition of existing buildings and the use and storage of typical hazardous materials used during construction and operation of the project. Hazardous construction materials may include vehicle fuels, oils, transmission fluids, mastics, and paints, and operation-phase hazardous materials may include cleaning solvents, painting supplies, petroleum products, and pesticides for landscaping and grounds maintenance. Existing standards and regulations require that potentially hazardous materials be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable California standards and regulations enforced by the Long Beach Fire Department. Any associated risk would be adequately reduced to a less than significant level through compliance with these standards and regulations. The proposed project would not include land uses, such as industrial or manufacturing uses, that would involve the manufacture, use, or transport of large quantities of potentially hazardous materials on an on-going basis. The potential for the project to emit and/or handle common hazardous materials in a manner that would adversely affect Cesar Chavez Elementary School would not be significant.

The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and does not represent a significant hazard to the public or to the environment. Therefore, the project would not create a significant hazard to the public or the environment and no significant impacts would occur.

The project site is not located within the vicinity of an airport or private airstrip. The nearest airport is Long Beach Airport, located approximately four miles from the site. No impacts with respect to an airport, airport land use plan, or private airstrip would occur.

Immediate access to the project site is provided via Ocean Boulevard, Golden Shore, and Seaside Way. Emergency response and emergency evacuation for the City is based on the availability of through streets and multiple access routes and bridges. Access to the project vicinity is provided by the I 710 freeway, Ocean Boulevard, Shoreline Drive, Golden West, and

Seaside Way. The proposed project would not impede street access through the removal of any through streets or changes in the existing street and highway pattern in the area. Additionally, construction activities and staging areas would be generally confined to the project site so as not to physically impair access to and around the site. A parking structure would be developed over a section of Seaside Way in the East Phase site; however, the proposed building would bridge the street and would not impede movement along the street right-of-way. Although a period of closure of Seaside Way would occur during construction of the bridge/parking structure, this street does not serve as a critical through route or evacuation route for the City, since alternative routes and cross streets occur in the area. East-west access between Golden West and the Convention Center is also available via Ocean Boulevard and Shoreline Drive, both of which are main arterials connecting with and serving other main arterials. Access along through streets and highways in the area, including Ocean Boulevard, Shoreline Drive, and Golden West would be maintained during construction and project operation. As the construction and operation of the proposed project would not permanently impede any through streets or evacuation routes, impacts with respect to emergency access would be less than significant.

Finally, the project site and surrounding areas are predominately developed and no wildlands occur within the vicinity of the project site. Future development as a result of project implementation would provide additional ornamental landscaping, which is not anticipated to create hazardous fire conditions. The project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

## **8. Hydrology and Water Quality**

The City's potable water is equally derived from groundwater wells within the City and purchases from the Metropolitan Water District of Southern California (MWD). Direct, natural groundwater recharge in the highly urbanized Ocean Boulevard corridor in downtown Long Beach is minor since the majority of the area is paved and/or covered with buildings. During project construction, excavation would be necessary for the development of subterranean parking levels. Therefore, it is possible that groundwater would be encountered during construction of the proposed project, and a construction dewatering permit may be required pursuant to Los Angeles Regional Water Quality Control Board (LARWQCB) requirements. However, if necessary, dewatering would occur in accordance with RWQCB and City guidelines to ensure that construction activities would not substantially deplete groundwater supplies or interfere with groundwater recharge. Consequently, construction impacts to groundwater would be less than significant.

Operation of the project also would not interfere with groundwater recharge. The majority of the project site is developed with buildings and paved surfaces, with limited ornamental landscaping. The proposed project would replace existing impervious areas with new impervious areas and would continue to incorporate landscaping on-site. Thus, there would

be a marginal change in the amount of impervious surface area, and thus a corresponding marginal change in the amount of runoff. A small, incremental increase in runoff would not affect the regional water table or the water levels in the City's existing wells needed to support the area's planned land uses. Furthermore, operation of the proposed project would not involve long-term extraction of groundwater. Therefore, the impact of the project on groundwater supplies would be less than significant.

According to the City of Long Beach NHMP, the project site flood inundation areas for the Sepulveda Reservoir and Hansen Dam on the Los Angeles River do not extend to the south of Ocean Boulevard.<sup>6</sup> The project is not located within an inundation area associated with any other levees or dams. Therefore, implementation of the project would not result in the exposure of people to a significant risk of loss, injury, or death involving flooding, including flooding associated with the failure of a levee or dam.

A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, lake, or storage tank. A tsunami is a great sea wave, commonly referred to as a tidal wave, produced by a significant undersea disturbance such as tectonic displacement associated with large, shallow earthquakes. Mudflows result from the downslope movement of soil and/or rock under the influence of gravity. The project site is not located below an enclosed basin or storage tank and would not be susceptible to seiche. In addition, the project site is not located within a hilly area that would be susceptible to mudflow. Thus, impacts with respect to seiches and mudflows would be less than significant and further analysis in an EIR is not required.

However, according to the General Plan Seismic Safety Element, the project site is located within an area of the City susceptible to tsunami.<sup>7</sup> The NHMP also addresses the possibility of tsunamis impacting the City of Long Beach and states that the most significant impacts would occur, among other shore areas, at the port and surrounding commercial areas that are at or near sea level.<sup>8</sup>

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<sup>6</sup> *City of Long Beach, Natural Hazards Mitigation Plan, Maps 5-6 and 5-7 (Source: U.S. Army Corps of Engineers).*

<sup>7</sup> *City of Long Beach General Plan Seismic Safety Element, Plate 11, Tsunami and Seiche Influence Areas (Source: Base Map Bureau of Engineers, USGS, 1961, and Steinbrugge, 1982), October 1988.*

<sup>8</sup> *City of Long Beach Natural Hazards Mitigation Plan, Chapter 9, Tsunami Hazards in the City of Long Beach, page 13, October 19, 2004.*

The Port of Los Angeles and Port of Long Beach have recently commissioned a rigorous probabilistic analysis to study the potential tsunami hazards affecting the two ports.<sup>9</sup> The study incorporated the following scope:

- Review of historical tsunamis impacting the Ports of Los Angeles and Long Beach;
- Identification and evaluation of the likelihood of potential local tsunamigenic sources;
- Generation of an initial tsunami from each potential source;
- Configuration of an applicable detailed hydrodynamic model for the two ports;
- Propagation of the potential tsunami waves into the two ports with detailed hydrodynamic models of the area;
- Description of the tsunamic characteristics in the ports, including predicted water levels, current speeds, and arrival times; and
- Determination of overtopping characteristics at locations where maximum water levels would exceed adjacent land elevations.

In accordance with the scope, the study evaluated the seismicity and tectonics of the Southern California Borderland (SCCB) to characterize the potential for tsunami-generating earthquakes. The analysis indicated that the SCCB has few restraining bends with thrust-type faulting sources large enough to generate significant tsunamis and, therefore, tsunamis appear to be extremely infrequent. According to the report, based on seismicity, geodetics, and geology, a large locally generated tsunami from either local seismic activity or a local submarine landslide would likely not occur more than once every 10,000 years. The study also suggested that the historically recorded tsunamis in the Ports of Los Angeles and Long Beach may be the maximum to be expected from remote sources. At the four local tectonic tsunami sources evaluated in the report, the travel time after the initial earthquake to Queens Gate in the Port of Long Beach ranges from approximately 18 to 29 minutes. For the two local landslide tsunami sources, the travel time after the initial landslide at Queens Gate would be 12 to 14 minutes. The travel time for the trans-ocean tsunami source would be slightly more than three hours. The study also suggests that the maximum mean wave height resulting from remote sources would be approximately 2.46 feet (0.75 meters) and maximum mean wave height from local sources (based on the worst case Palos Verdes Landslide model) would reach approximately 23 feet (7 meters) at the Navy Mole in the Port of Long Beach.

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<sup>9</sup> *Port of Los Angeles and Port of Long Beach, Tsunami Hazard Assessment for the Ports of Long Beach and Los Angeles (Prepared by Moffatt & Nichol, Long Beach, CA), April 2007.*

The proposed project would be developed above parking structure podiums, ranging from 50 feet above ground level in the West Phase site to 60 feet above ground level in the East Phase site. Although office lobbies and garages would be at lower elevations, all offices and residential development would occur above these levels. With a worst case wave height of 23 feet, the occupied units and offices would be above the level of the maximum tsunami wave. Given the low probability of tsunamis (extreme infrequency) and configuration of the occupied portion of the project above the ground level, the proposed project would not have a significant impact with respect to tsunami hazards.

However, since the project could result in potential impacts regarding hydrology and water quality, this issue is addressed in this EIR. Please refer to Section IV.E of this Draft EIR for a detailed analysis.

## **9. Land Use and Planning**

As identified in the Initial Study, the project site is defined by a complex network of surrounding streets, including separated grade crossings and divided streets and highways that would remain in their existing configurations with the development of the proposed project. With the exception of the Golden Shore RV Park directly to the south of the West Phase site, south of Shoreline Drive, the project site adjoins existing high-rise commercial and residential buildings, including the Hilton Hotel and One World Trade Center to the north; and Arco Plaza (200 - 300 Ocean Gate) and a variety of high-rise commercial and residential buildings along Ocean Boulevard to the east. The proposed project would represent a continuation of recent high-rise development along Ocean Boulevard. As the project is an extension and continuation of an existing high-rise corridor containing a mix of uses, it would not divide an existing community. In addition, the project site is entirely developed with three 14-story, 6-story, and 2-story office buildings and associated parking structures within a highly urbanized area of Downtown Long Beach. No Habitat Conservation Plans, Natural Community Conservation Plans, or other approved habitat conservation plans apply to the project site. Therefore, the implementation of the proposed project would have no impact on adopted habitat conservation or natural community conservation plans.

However, given the discretionary actions requested for the project and the associated increase in the intensity of development on the site compared to existing conditions, consistency with applicable land use plans, policies and regulations are evaluated in the EIR. Please see Section IV.F, Land Use and Planning, for a detailed analysis.

## **10. Mineral Resources**

No mineral extraction operations occur on the site or in the nearby vicinity. The project site is located within an urbanized area of the City of Long Beach and has been committed to urban land uses for many years. This project site is not located within a City-designated Mineral Resource Zone where significant mineral deposits are known to be present or within a mineral producing area as classified by the General Plan. Therefore, the project would result in no impacts to known mineral resources or to a mineral resource recovery site.

## **11. Noise**

As discussed in the Initial Study, the project site is not located within a planning area addressed by the Long Beach Airport Land Use Plan, within two miles of a public or public use airport, or in the vicinity of a private airstrip. Thus, the proposed project would not expose people to excessive noise levels from airport operations or general aviation activities. However, since the project could result in an increase in ambient noise during construction and operation, this issue is addressed in this EIR. Please refer to Section IV.G for further discussion of project-related noise impacts.

## **12. Population and Housing**

The project site is currently developed with commercial buildings and associated surface parking areas. No housing or other residential uses exist on the project site. Thus, implementation of the project would not displace existing housing or people. No impacts would occur. However, since the project would result in the development of 1,370 residential units, 340,000 square feet of office uses, and 28,000 square feet of retail under the Residential Option and 1,110 residential units, 340,000 square feet of office uses, 27,000 square feet of retail uses, and a 400-room hotel with a 27,000 banquet hall/restaurant under the Hotel Options, project-related impacts to population and housing were analyzed in Section IV.H of this Draft EIR.

## **13. Transportation and Circulation**

The project site is not located in the vicinity of a public or private airport. Furthermore, the project does not propose any uses that would change air traffic patterns, directly generate new air traffic, or interfere with existing air traffic. As such, no safety risks associated with a change in air traffic patterns would occur.

However, since the project could result in an increase in traffic during construction and operation, this issue is addressed in this EIR. Please refer to Section IV.J of this Draft EIR for further discussion of project-related traffic impacts.

## 14. Utilities and Service Systems

The City of Long Beach is located in Sanitation District No. 29 of the Los Angeles County Sanitation District (LACSD). Wastewater treatment for the City is provided by the Joint Water Pollution Control Plant (JWPCP), located in the City of Carson. The JWPCP provides primary and partial secondary treatment for 350 million gallons of wastewater per day. The Residential Option of the project would generate an estimated 324,158 gallons per day (gpd) of wastewater. In addition, the Hotel Option of the project would generate an estimated 332,658 gpd of wastewater. The project's demand for wastewater treatment would not be expected to exceed existing treatment capacity or the wastewater requirements of the Los Angeles Regional Water Quality Control Board (LARWQCB) for the JWPCP.

Wastewater in the project area is conveyed in sewer lines that include a 10-inch line in Ocean Boulevard, a 10-inch and 12-inch line in Seaside Way, and an 8-inch line in Shoreline Drive. LBWD has indicated that the project would not conflict with these existing sewer lines, but that a 6-inch sewer lateral line in Shoreline Drive and Golden Shore would need to be relocated south of the project property line in order to accommodate proposed development.<sup>10</sup> This relocation would occur under the direction of the City to ensure compliance with all applicable standards. As the existing sewer lines that serve the site are considered adequate to accommodate project-generated wastewater, impacts would be less than significant.

Water service and wastewater conveyance in the City of Long Beach is provided by the Long Beach Water Department (LBWD). Within the project area, water supplies are delivered via 20-inch and 12-inch water lines in Ocean Boulevard and 12-inch lines in Seaside Way and Golden Shore. LBWD has indicated that project development would not conflict with these existing water lines, but that no new water connections to the 20-inch Ocean Boulevard line are permitted.<sup>11</sup> Nonetheless, the existing water lines that serve the site are considered adequate to accommodate project-generated water demand, and impacts would be less than significant.

Solid waste collection from the project site would be managed by the Department of Public Works Environmental Services Bureau. The City has a 69 percent waste diversion rate through recycling and other measures and is in compliance with the California Integrated Waste Management Act of 1989 (AB939). The proposed project would comply with applicable regulations related to solid waste, including those pertaining to waste reduction and recycling. As all solid waste collection from the project site would be managed by the Environmental

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<sup>10</sup> *Memo from Larry Oaks, Development Services, Long Beach Water Department to Derek Burnham, Planner, Long Beach Development Services, February 27, 2008.*

<sup>11</sup> *Ibid.*

Services Bureau, which is in compliance with federal, state, and local statutes and regulations, the proposed project would be consistent with respective regulatory measures.

Electricity transmission to the project site is provided and maintained by Southern California Edison (SCE). SCE currently derives approximately 16 percent of its energy from wind, solar, biomass, small hydropower and geothermal sources, and in 2007 lead all U.S. utilities in the delivery of renewable energy, procuring approximately 12.5 billion kilowatt-hours (kWh). In 2007, SCE delivered the following renewable energy portfolio to its customers:

- • Geothermal: 7.71 billion kilowatt-hours (62 percent)
- • Wind: 2.58 billion kilowatt-hours (21 percent)
- • Solar: 667 million kilowatt-hours (5 percent)
- • Biogas: 580 million kilowatt-hours (5 percent)
- • Small hydro: 557 million kilowatt-hours (4 percent)
- • Biomass: 336 million kilowatt-hours (3 percent)

In August 2008, SCE began construction on a solar panel array on commercial buildings in Southern California totaling two square miles, the largest solar array in the world, and in August 2008, SCE signed a 20-year contract with Caithness Energy to provide up to 909 megawatts of wind power. Once completed, the Caithness project will be one of the world's largest fully permitted wind farms. The Caithness project involves the installation of 303 wind turbines across 30 square miles in Gilliam and Morrow Counties in North-Central Oregon between 2011 and 2012. This project is expected to generate 2 billion kilowatt-hours per year of renewable energy, which is more than one-tenth of SCE's overall renewable portfolio.

In addition, the City's SERRF system combusts residential and commercial solid waste to produce steam which in turn is used to run the turbine-generator producing electricity. The electricity is used to operate the facility with the remainder sold to SCE. SERRF processes an average of 1,290 tons of municipal solid waste each day and generates up to 36 megawatts of electricity. SERRF has sold to SCE in excess of 1½ billion kilowatts. According to the City of Long Beach, SERRF generates enough power each year to supply 35,000 residential homes with electricity.<sup>12</sup>

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<sup>12</sup> City of Long Beach, [www.longbeach.gov/lbgo/serrf](http://www.longbeach.gov/lbgo/serrf), accessed November 6, 2008.

As shown in Table B-2 on page B-40, the project would generate a demand for an estimated 8,738 million kilo-watt hours (kWh) per year (Residential Option) or 7,821 million kWh per year (Hotel Option). Rates shown in Table B-1 do not reflect the 2008 Building Energy Standards for California (Title 24), effective in July 2009. In addition to the implementation of the updated Title 24, the project would implement Leadership in Energy and Environmental Design (LEED) design elements which would also incrementally reduce electricity demand. SCE has an approximate annual production of 121 billion kWh annually. Compared to SCE's annual output, project-related annual electricity demand would represent a small fraction of existing demand from a service that has an annual output of 121 billion kWh and anticipates an increase of approximately 3 billion kWh of renewable energy by 2012. Therefore, the electricity demand generated by the proposed project would fall within the anticipated service capabilities of SCE.

Natural gas is provided to the project site by the City of Long Beach Gas and Oil Department (LBGO). The LBGO purchases natural gas from local producers. Production sites are located in off-shore islands in Long Beach Harbor. This local source, which goes directly into the City's natural gas pipeline system, represents approximately 10 percent of the total natural gas purchased by LBGO. The remainder is purchased from throughout the southwestern United States and transported to Long Beach via the Southern California Gas Company (SoCal Gas) distribution system. The Anine plant in the City of Long Beach will allow natural gas supplies to be cleaned to meet City standards. The Anine plant, which will be completed in January 2009, will allow the LBGO to purchase up to 35 percent of its natural gas from local producers. The Long Beach downtown area, including the project site, is close to the local natural gas production (Long Beach Harbor) and is served by the City's local natural gas infrastructure. According to the LBGO, infrastructure upgrades have been made to the downtown area to provide adequate service to high-rise residential development and offices.<sup>13</sup>

The California Energy Commission (CEC) 2008-2018 Staff Revised Report stated that end user natural gas demand in California is approximately four percent lower than forecasted in 2005 due to energy conservation and indicates that natural gas supplies, which were estimated to be sufficient to meet the State's energy demand under the prior, higher forecasts, would also meet the revised forecast. According to the US government Energy Information Administration (EIA), natural gas production in the Lower 48 States has seen a large upward shift. After nine years of no net growth through 2006, an upward trend began that generated three percent growth between first-quarter 2006 and first-quarter 2007, followed by an exceptionally large nine percent increase between first-quarter 2007 and first-quarter 2008. Large recent increases in supply are coming from across the Lower 48 States. However, more than half of the increase in natural gas production between the first quarter of 2007 and the first quarter of 2008 came from

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<sup>13</sup> Paulina Flores, Gas Supply Business Office, telephone interview, November 10, 2008.

Texas, where supplies grew by an exceptionally high 15 percent due to improved technology and higher natural gas prices. According to the EIA, on a nationwide level, technically recoverable natural gas resources are estimated to far exceed current production levels.

The project would generate an approximate demand of 154,293 thousand cubic feet per day (kcf/day). This volume represents a small percentage increase with respect to current capacity and expanding local and regional supplies. In addition, the project's compliance with energy conservation standards set forth in the amended Title 24 (effective January 2009) and voluntary LEED features will further reduce the project's potential impacts on natural gas resources. Therefore, substantial adverse physical impacts associated with the project's estimated demand on natural gas supplies that would exceed supply or LGBO's delivery capacity would occur. Therefore, no significant impacts to local or regional supplies of natural gas would occur.

Regardless, since the project would result in an increase demand for water supply and would also result in an increase in solid waste generation, project-related impacts in these regards were analyzed in Section IV.K of this Draft EIR.