

## **4.6 HAZARDS AND HAZARDOUS MATERIALS**

### **INTRODUCTION**

The following discussion is based on the Tier III Sediment Characterization Performed with Samples from Alamitos Bay Marina (Weston Solutions, Inc. 2007) and the Supplemental Sampling and Analysis Report (Anchor QEA, May 2009) both included in Appendix F, and a First Search Environmental Database Report included in Appendix G.

This section describes known and potentially hazardous materials conditions in the vicinity of the project area, related potentially significant adverse public health impacts anticipated as a result of the proposed project, and includes mitigation measures for the impacts as appropriate. This section also addresses the proposed impacts with consideration of local, State, and federal regulations and policies and provides recommended mitigation measures pursuant to California Environmental Quality Act (CEQA).

### **4.6.1 EXISTING ENVIRONMENTAL SETTING**

#### **4.6.1.1 Project Site Conditions**

The majority of the structures on site date to the late 1950s/early 1960s. The Marina provides accommodation for 1,997 boat slips. The Marina offers recreational boaters, State residents, tourists, and others a number of recreational activities. Boat refueling occurs at a fuel dock located west of Basin 1, just inside the entrance to Alamitos Bay Marina.

Marina-related uses may involve the storage and use hazardous materials such as cleaning agents, solvents, oils, and fuel. The storage, use, transport, and disposal of such hazardous materials are subject to local, State, and federal regulations. All boats potentially carry solvents, paints, cleaners, oils, and fuel. In addition, boats may include bottom treatments and/or paints that contain heavy metals or other compounds that, when released into the water, provide a source of contamination. There are also ongoing boat-related maintenance practices that may contribute either indirectly or directly to the potential for a spot and/or temporary hazardous material condition within the Marina, such as:

- Oil and fuel handling
- Boat cleaning, painting, and maintenance
- Underground storage tanks
- Hazardous material disposal stations

No physical presence of hazardous materials on adjacent properties was visibly evident during a site inspection conducted by LSA Associates, Inc. (LSA) on April 10, 2007. In addition, no unusual or suspicious materials handling or storage practices were observed with respect to adjacent properties. The surrounding properties contain sites where hazardous materials are generated, stored, handled, and/or treated, including sites of existing and past land uses that used, stored, and disposed of hazardous materials and wastes such as the nearby power plants and gasoline stations. Additionally, several off-site properties have been listed for activities associated with hazardous materials (transferring, storing, subsurface releases, remediation, etc.).

#### **4.6.1.2 Surrounding Conditions**

The land uses surrounding the Marina basins include residential, commercial development, marine-related commercial uses, a shipyard, yacht and sailing clubs, and recreation uses.

Basins 1, 2, and 3 are surrounded by harbor parking areas and commercial uses, including several restaurants and marine-related retail uses. The Navy Yacht Club of Long Beach and the Seal Beach Yacht Club are both located on Marina Drive near Basin 2 of the Marina. Commercial uses, including a hotel, are located across Marina Drive from Basins 2 and 3. A fuel dock is located west of Basin 1, just inside the entrance to Alamitos Bay Marina.

Basin 4, located across the water from Basin 3 on Naples Island, is surrounded by residential uses and is adjacent to the Long Beach Yacht Club. Basin 5 is located at the southeast end of the Alamitos Bay Peninsula, adjacent to Alamitos Bay Yacht Club.

Land uses adjacent to Basin 6-North (Basin 6-N) include the Marina Pacifica Mall commercial center located on PCH. Residential uses and private slips are located across the channel from Basin 6-N. Basin 6-South (Basin 6-S) is adjacent to the residential community of Marina Pacifica, with additional residential uses located across the channel from the basin.

Land uses surrounding Basin 7 include residential uses on the Alamitos Bay Peninsula and residential uses across the channel on Naples Island. The United States Sailing Center Long Beach is located adjacent to Basin 7.

Land uses adjacent to the proposed habitat mitigation site on the northeast shore of Marine Stadium consist of a City-owned storage yard, the waters of Marine Stadium, and recreation trails.

#### **4.6.1.3 Sediment Quality in the Marinas**

According to the Tier III Sediment Characterization Performed with Samples from Alamitos Bay Marina (Weston Solutions, Inc. 2007), sediments within the Alamitos Bay Marina were analyzed in April 2007. The purpose of the sampling and analysis was to determine whether dredged materials resulting from the proposed project would be suitable for disposal at the United States Environmental Protection Agency's (EPA) designated Ocean Dredged Material Disposal Site (ODMDS) known as LA-2, located off the coast of San Pedro, California. The sediment samples from Alamitos Bay Marina were compared to LA-2 reference material results as well as Effects Range-Low (ER-L) and Effects Range-High (ER-H) values. Weston's reference level of ER-L is derived from Sediment Quality Guidelines (SQGs) developed informally for the National Status and Trends Program (NSTP) to rank sediment toxicity. The term "Effects Range-Low" indicates that the concentrations present in the sediment evaluated are below the threshold where adverse effects would occur.

Results of the 2007 chemical analysis of dredge materials indicated that metal constituents were present in Alamitos Bay sediments at levels below or consistent with ER-L reference values with the exception of metals commonly associated with urban runoff (i.e., copper, lead, mercury, and zinc), which were detected at nominally elevated concentrations throughout the Marina. Other metals that were detected at levels exceeding ER-Ls include zinc, which was only found at elevated levels in Basins 4, 5, and 6. Arsenic was also found in Basin 1 at a concentration exceeding the ER-L for this contaminant by 10 percent.

In general, the elevated concentrations of metals did not exceed the ER-L values by any substantial degree, and with the exception of concentrations of mercury detected in Basin 1, none of the metal concentrations approached ER-M levels. Mercury was detected in the finer-grained sediments of Basin 1, exceeding the ER-M by 0.12 milligram per kilogram (mg/kg). Due to the elevated levels of mercury, Basin 1 sediments were retested in May 2009 by Anchor Environmental. The results of the May 2009 testing also indicated that mercury levels exceeded acceptable thresholds for disposal at LA-2. An evaluation of the overall area indicates that high concentrations of mercury were found within all areas of Basin 1 with the exception of the southeast and northwest corners of Basin 1, which had predominantly low (ERL or below) mercury concentrations.

Approximately 59,242 cubic yards (cy) of sediment will be removed through dredging from Basin 1. Out of the 59,242 cy of sediment, approximately 33,738 cy of material qualifies for disposal at LA-2. The remaining approximate 25,504 cy that contain elevated concentrations of mercury (as high as 2.59 milligrams per liter [mg/L]) would be required to be tested and disposed of at an appropriate State-certified landfill, confined aquatic disposal site, or an upland confined disposal facility. The preliminary plans call for the contaminated materials to be dried on a barge or at one of the construction staging areas and then trucked off site. Because the final determination of where these materials will go is still under discussion, the EIR has assumed a worst-case scenario that the materials will be trucked to Kettleman Hills

Hazardous Waste Facility, a commercial chemical waste site located in Kings County, California.

Organic constituents within the Marina waters were below acceptable levels of detection, with the exception of dichloro-diphenyl-trichloroethane (DDT) and a few polynuclear aromatic hydrocarbon (PAH) compounds. DDT was detected at concentrations consistent throughout all docking basins, but at relatively low levels. The total PAH concentrations were substantially lower than levels of ecological concern.

In summary, other than sediments from Basin 1, the concentrations of constituents found in the samples occurred at levels that only slightly exceed ER-L values. Therefore, all of the dredge materials, with the exception of 25,504 cy from Basin 1, will be barged and disposed offshore at LA-2.

#### **4.6.1.4 Contaminated Sites from Prior Known Hazardous Releases**

According to the Environmental First Search report provided by Track Info Services (June 2007), a total of seven recorded releases of contaminants into the environment, consisting of five recorded leaking underground storage tank (LUST) sites and two State Spill sites, are listed within 0.25 mile (mi) of the project site. Three of the five LUST sites have been issued closure letters from the Regional Water Quality Control Board (RWQCB), indicating that the existing soil and groundwater contamination do not pose a significant enough risk to the underlying groundwater resources to require further remediation. The remaining two LUST sites that will likely pose a potential concern to groundwater underneath the project site are described below.

**The Oil Shale Corporation (TOSCO) 76 Station No. 5379.** The former TOSCO gasoline station is listed at 6280 2nd Street in the City of Long Beach, California, and is located adjacent to the project site, immediately west/northwest of Basin 3.

**Exxon No. 7-3047.** The former Exxon gasoline station is listed at 6401 East Pacific Coast Highway in the City of Long Beach, California, and is located approximately 0.1 mi north/northeast of Basin 3 at the project site.

**Termo Oil Company.** According to the Environmental FirstSearch Site Detail Report, the Termo Oil Company is listed twice under the same address of 6301 East Pacific Coast Highway in the City of Long Beach, California, and is located approximately 0.2 mi north/northeast of the project site. Verification monitoring and postremediation monitoring is underway to identify current total petroleum hydrocarbon (TPH) concentrations in the soil and potentially in the groundwater.

**J's Cleaners.** According to the Environmental FirstSearch Site Detail Report, J's Cleaners is listed at 6481 Pacific Coast Highway in the City of Long Beach, California, located approximately 0.1 mi north/northeast of the project site. J's Cleaners is currently undergoing a site assessment for volatile organic compounds (VOCs) that have been released into the environment. No other information regarding the release was available in the FirstSearch report.

All LUST and State Spill sites listed above have completed or are currently undergoing remedial action for known soil and/or groundwater contamination. According to depth to groundwater information obtained from a leaking underground fuel tank (LUFT) report for a site located approximately 0.2 mi northeast of the project site, depth to groundwater has been encountered between 5.5 and 10.9 ft below ground surface (bgs). Although groundwater impacts may be present at the project site, the proposed project does not require excavations below a depth of approximately 2 ft bgs.

#### **4.6.1.5 Asbestos and Lead-Based Paints**

The majority of the existing structures in the Marina were built in the late 1950s and early 1960s; therefore, there is a potential for asbestos-containing materials (ACMs) and/or lead-based paints (LBPs) to be present in existing building materials.

#### **4.6.1.6 Polychlorinated Biphenyls (PCBs)**

Some marine-related uses (boat maintenance) that may contain PCBs are located on or within the immediate vicinity of the project site. Properties associated with boat maintenance and repair may use hydraulic lifts and associated fluids, which are susceptible to subsurface leakages; if so, they may result in health impacts. If old electrical transformers and light ballasts remain on site, they may contain PCBs. Pole-mounted transformers and hydraulic lifts associated with boat maintenance and repair facilities were observed on site. However, no visible signs of staining or leakage from transformers were observed on-site. The primary concern with hydraulic lifts is the potential for subsurface leakages of hydraulic fluids from the lift's piston.

#### **4.6.1.7 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. Structures 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 Clean Air Act (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 roads. Lead is also regulated as a toxic pollutant under the federal Clean Water Act (CWA) and the Porter-Cologne Water Quality Control Act as well as under the federal and California safe drinking water acts.

Release of LBP into the environment is a violation of several laws, including OSHA, Resource Conservation and Recovery Act (RCRA), the CAA, and the CWA. For the purposes of this analysis, it is assumed that LBP is present on site.

The SCAQMD and the City of Long Beach Health Department are the enforcement agencies for the project site.

#### **4.6.1.8 California Clean Marina Toolkit Programs**

The *California Clean Marina Toolkit* (Toolkit), which was produced by the California Coastal Commission, is a guidebook designed to help a Marina operator manage and operate a “clean Marina.” A “clean Marina” complies with environmental laws and regulations and also strives to maintain a healthy, pollution-free environment by providing services that support clean boating, educating customers about clean boating practices, and training staff to be partners in the clean Marina program. The Toolkit recommends practices for addressing particular pollution problems and also provides guidelines to assist with educating Marina customers to be partners in clean Marina programs. The Toolkit also provides information of diverse Marinas in California and what they have done to operate as clean Marinas as well as sources for additional information.

The Clean Marinas California Program is administered through the Marina Recreation Association. The Alamitos Bay Marina was certified as a “Clean California Marina” on June 13, 2006. To obtain this designation, Alamitos Bay Marina implemented a number of best management practices (BMPs) that help reduce water pollution. Examples of BMPs implemented at Alamitos Bay Marina include good boat-keeping practices, education, signs, notices, Marina Rules and Regulations, waste receptacles, bilge pad exchange programs, and spill prevention and rapid clean-up plans. The program requires Certified Marinas to follow

guidelines for Marina activities including, but not limited to, emergencies, topside boat maintenance and cleaning, and underwater boat hull cleaning. The Long Beach Marina Environmental Policies prohibit certain activities which could contribute to poor water quality. This includes prohibiting rebuilding, hull painting, and other major repairs, as well as restrictions for sanding, painting, and the use of chemicals on a boat while the boat is moored at the Marina. Owners and contractors are required to follow policies that specify proper methods of in-water boat maintenance and require contractors to be registered and carry identification for any in-water repairs or maintenance services.

#### **4.6.2 REGULATORY SETTING**

Federal regulations related to hazardous materials and wastes include:

- Occupational Safety and Health, Title 29, Code of Federal Regulations (CFR), Regulations for General Industry (Part 1910) and Construction (Part 1926)
- United States Environmental Protection Agency (EPA), Title 40 CFR, National Emissions Standard for Hazardous Air Pollutants (NESHAPS), Part 61, Subpart A
- EPA, Title 40 CFR 700–799 (Toxic Substances Control Act)
- United States Department of Transportation (USDOT) Regulations, Title 49 CFR

State and local regulations related to hazardous materials and wastes include:

- Title 8 California Code of Regulations (CCR), California Occupational Safety and Health Administration (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
- Title 17 CCR, Public Health, Division 1, State Department of Health Services, Chapter 6—Lead Poisoning Prevention Program
- South Coast Air Quality Management District (SCAQMD), Rules and Regulations

##### **4.6.2.1 Standard Regulatory Requirement – Handling and Storage of Hazardous Substances**

Federal, State, and local codes for the handling and storage of any hazardous substances, including petroleum hydrocarbons, are to be followed at all times. This requirement shall apply both during construction and throughout the length of the project. These include proper storage and spill containment procedures. Prior to issuance of any building permits, the

project applicant shall obtain permits from the City of Long Beach Fire Department and any other applicable regulatory agency for the storage or handling of any hazardous substances.

#### **4.6.2.2 California Code of Regulations Title 22 Criteria**

Hazardous materials and wastes are defined by the regulations listed within the California Code of Regulations (CCR), Title 22, Sections 66261.1–66261.126. Hazardous materials and wastes are defined in the CCR, Title 22, Sections 66261.1 through 66261.126. In accordance with these regulations, a waste is classified as hazardous if it exhibits ignitability, corrosivity, reactivity, or toxicity. Section 66261.24 states that a waste is considered toxic if: (1) it contains certain metals or organic substances at soluble concentrations greater than federal regulatory levels using a test method called the toxicity characteristic leaching procedure (TCLP); (2) it contains total concentrations of certain substances greater than the total threshold limit concentration (TTL) or soluble concentrations greater than the soluble threshold limit concentration (STLC); (3) it contains specified carcinogenic substances at a single or combined concentration of 0.001 percent; or (4) testing indicates toxicity greater than the specified criteria.

#### **4.6.3 METHODOLOGY**

Project impacts related to hazards and hazardous materials were evaluated based on the potential to expose sensitive receptors, including nearby residents and construction workers, as well as the surrounding environment, to hazards or hazardous materials during construction activities and after construction of the Marina. A basic site reconnaissance and a Records Search (Environmental First Search Report, Track Info Services, June 12, 2007) were conducted to determine any existing hazardous waste release issues related to former or current operations within the project limits and in the surrounding vicinity.

On November 2, 2008, LSA conducted a site visit, which included a visual observation of Alamitos Bay Marina and surrounding properties. The objective of the site reconnaissance was to identify recognized environmental conditions (RECs), including hazardous substances and petroleum products on the property (including soils, surface water, and groundwater) on site and on immediately adjacent properties. Multiple structures were observed within the boundaries of the project site. On-site structures were utilized for recreation, commercial, storage, and as maintenance facilities. The structures appeared to be in fair to good condition; were constructed of wood frame with either stucco, brick, or wood siding; and are all situated on concrete foundations. Many of the structures and associated lots are separated by concrete block, wood, or chain-link fencing.

Based on the findings of the screening, site visit, and project-specific sediment analyses, impacts were evaluated and mitigation measures were developed to address recognized environmental concerns as well as use and disposal of hazardous materials.

#### **4.6.4 THRESHOLDS OF SIGNIFICANCE**

The impact significance criteria used for this analysis are based primarily on Appendix G of the State CEQA Guidelines. The project may be considered to have a significant effect related to hazards and hazardous materials if implementation would result in one of more of the following:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials
- 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
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mi of an existing or proposed school
- 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, create a significant hazard to the public or the environment
- Be located within an airport land use plan, or where such a plan has not been adopted within 2 mi of a public airport or public use airport, resulting in a safety hazard for people residing or working in the project area
- Be located within the vicinity of a private airstrip, resulting in a safety hazard for people residing or working in the project area
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan
- 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

The project site is not located within an airport land use plan area, within 2 mi of a public airport or within the vicinity of a private airport, and is not located adjacent to wildlands. In addition, the project is a continuation of existing land uses and does not result in an intensification of use or alter access on or in the vicinity of the project site. Therefore, the Initial Study previously prepared by the City determined that the proposed project would not have a significant impact with respect to the following CEQA thresholds: projects located within an airport land use plan, within 2 mi of a public airport, or within the vicinity of

private airstrip; the project's potential to interfere with an adopted emergency response plan or emergency evacuation plan; or proximity to and hazards from wildland fires. Therefore, these issues are not addressed further in this EIR.

#### **4.6.5 IMPACTS AND MITIGATION MEASURES**

##### **4.6.5.1 Less than Significant Impacts**

**Hazardous Materials during Operation.** The operation of the Marina as proposed would involve the use of small amounts of hazardous materials typical of such uses. The handling, use, storage, transport, and disposal of small amounts of substances used for boat cleaning and maintenance such as cleaners, solvents, and paints are subject to existing applicable federal, State, and local regulations. Because the uses on site postproject would remain the same as under current conditions, substantial changes to the operational characteristics and types of potentially hazardous materials present on site are not anticipated.

Likewise, the regulations and BMPs related to water quality and boat maintenance activities will not change. As stated above, the Long Beach Marina Environmental Policies, as well as the requirements to retain the Clean Marina Certification, prohibit certain activities that could contribute to poor water quality. This includes prohibiting boat and engine rebuilding, hull painting, and other major repairs, as well as restrictions for sanding, painting, and the use of chemicals on a boat while the boat is moored at the Marina. Owners and contractors are required to follow policies that specify proper methods of in-water boat maintenance and require contractors to be registered and carry identification for any in-water repairs or maintenance services. Therefore, impacts related to the use of hazardous materials under operational conditions are considered less than significant, and no mitigation is required.

##### **4.6.5.2 Potentially Significant Impacts**

**Hazardous Materials during Waterside Construction.** The proposed project includes dredging that would remove the accumulated sediment in order to return each of the Marina's seven basins to their original design depths and/or original basin depths to allow unencumbered maneuvering of recreational vessels. The Alamitos Bay Marina construction program involves dredging Basins 2 through 7 to a target depth of -10 ft Mean Lower Low Water (MLLW). Basin 1 will be bisected and dredged to target depths ranging from -12 ft MLLW to -15 ft MLLW. The estimated total volume of dredged material to be removed from the seven basins is approximately 287,120 cy.

As stated above, the materials resulting from the proposed dredging activities in Basins 2-7 are suitable for disposal at the EPA's designated ODMDS known as LA-2. Therefore, because the sediment within Basins 2-7 has been determined to be nonhazardous, it is unlikely that any dredging activities in those basins will pose a concern through the routine

transport, use, or disposal of sediment material. In addition, all material proposed for dredging will be evaluated for ocean disposal suitability in accordance with federal and regional guidelines outlined in the Ocean Testing Manual (EPA/United States Army Corps of Engineers [Corps] 1991) and the Draft Regional Implementation Agreement for the Evaluation of Dredged Material for Ocean Dumping (Corps/EPA 1993). Dredging and disposal of dredged materials into waters of the United States are subject to the regulatory authority of the Corps under Section 404 of the federal Clean Water Act (CWA), Section 10 of the Rivers and Harbors Act, and Section 103 of the Marine Protection, Research, and Sanctuaries Act. The requirements for these permits are described in detail in Section 4.7, Hydrology and Water Quality. Impacts related to dredging in the Marina and disposal of dredged material at the LA-2 site would be less than significant with implementation of Mitigation Measure 4.7-1, as outlined in Section 4.7, Hydrology and Water Quality.

Testing of sediments in Basin 1 in 2009 confirmed that mercury levels exceeded acceptable thresholds for disposal at LA-2. An evaluation of Basin 1 sediments indicates that a high concentration of mercury was found within all areas of Basin 1 with the exception of the southeast and northwest corners. Because of the high mercury levels in Basin 1, approximately 25,504 cy would be required to be tested and disposed of at an appropriate State-certified landfill.

During dredge operations, Basin 1 would be isolated by a silt curtain to help maintain water quality. Clamshell/bucket-type dredging equipment would be used. The dredged material would be temporarily stockpiled in the construction staging area until it was loaded onto trucks. Plastic tarps and containment structures would be placed under and around the stockpile areas to prevent runoff back into Alamitos Bay. Additionally, dust will be minimized on site during the sediment evaporation process through application of a nontoxic soil stabilizer or watering, as required in Mitigation Measure 4.2-1, Air Quality.

Prior to disposal, dredge materials from Basin 1 must be tested to determine whether concentrations of mercury are considered hazardous by state and federal (RCRA) levels. Mitigation Measure 4.6-1 will require that dredge materials be tested prior to disposal at a land side facility. Per state standards, any soluble constituent concentration exceeding the Title 22 STLC is classified as hazardous material. If results from additional testing indicate that levels of mercury within Basin 1 exceed the STLC for mercury at 0.2 mg/L, the dredge materials from Basin 1 would be considered hazardous under California's Title 22 regulations. In order to determine whether the sediments within areas of Basin 1 would be considered hazardous by federal standards under the RCRA, leaching potential would be required to be evaluated using the TCLP testing method prior to disposal. If results of the

TCLP extract indicate concentrations of mercury that exceed the federal threshold of 0.2 mg/L, the sediment would be considered hazardous under federal guidelines.<sup>1</sup>

If testing (as required by Mitigation Measure 4.6-1) indicates that concentrations of mercury within Basin 1 exceed state and federal (RCRA) levels, the dredge materials would be disposed of at a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) approved, Class I landfill. The closest Class I landfill facility is the Kettleman Hills Landfill located in Kings County on the Interstate 5 (I-5) corridor, north of the City of Bakersfield. In addition, a Human Health Risk Assessment, required by Mitigation Measure 4.6-2, will be conducted to evaluate the potential health risks for construction workers working on site from the exposure to potentially hazardous concentrations of mercury in dredge material.

In order to ensure that all materials being stored on site would not be accidentally released into the environment, soil stockpiles will be covered in accordance with the Soil Management Plan required in Mitigation Measure 4.6-3. After the loading, covering, and manifesting the trucks containing the impacted soils, the trucks destined for the Kettleman Hills Landfill will be routed. The implementation of Mitigation Measures 4.6-1, 4.6-2, and 4.6-3 would ensure that construction impacts related to the handling, routine transport, and disposal of potentially impacted sediments would be less than significant.

**Hazardous Materials during Landside Construction.** Construction of the proposed project would involve the routine use, handling, storage, transport, and disposal of hazardous materials such as fuels, paints, and solvents, consistent with applicable federal, State, and local regulations. In compliance with existing federal, State, and local regulations, the amounts of these materials present during construction would be limited and would not pose a significant adverse hazard to workers or the environment. The construction contractor would be required to implement standard BMPs regarding hazardous materials storage, handling, and disposal during construction in compliance with the State General Permit to protect water quality.

As discussed above, the FirstSearch Environmental Database search indicated that two LUST sites and three State spill sites are located within 0.25 mi of the project site. These sites are currently undergoing remediation and may contribute to groundwater quality impacts underneath the project site. Although groundwater impacts may be present at the project site during construction activities, the proposed project does not require excavations below a depth of approximately 2 ft bgs. Therefore, it is unlikely that impacted groundwater will be accidentally released into the environment during the excavation and replacement of the

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<sup>1</sup> Colorado Lagoon: Sediment Testing and Material Disposal Report, Kinnetic Laboratories, Inc., July 30, 2004 (Revised October 27, 2006).

existing parking lots. However, in the event that contaminated groundwater is encountered during grading or excavation activities, Mitigation Measure 4.6-4, requiring all construction subcontractors to comply with the appropriate health and safety measures, is proposed. Implementation of Mitigation Measure 4.6-4 will help minimize potential health and safety risks for the City's contractors in the event that accidental release of impacted soil or groundwater occurs during construction activities to a less than significant level.

**Asbestos-Containing Materials and Lead-Based Paints.** Because the existing restroom structures that are proposed to undergo remodeling and/or demolition were constructed in the late 1950s and early 1960s, there is a potential for ACMs and/or LBPs to be present in existing building materials. Therefore, all building materials that will be remodeled or demolished during the proposed project shall be tested for ACMs and LBPs and appropriately removed prior to the start of such activities. The implementation of Mitigation Measures 4.6-5, 4.6-6, and 4.6-7 will help minimize potential health and safety risks associated with exposure to potential ACMs and LBPs and reduce potential impacts to less than significant levels.

**Polychlorinated Biphenyl.** Proposed replacement of the existing parking lot may include the disturbance or removal of existing transformer-mounted utility poles. Impacted soil or groundwater from leaking transformers containing PCBs, if present on site, may pose a concern to worker safety. In the event that these utility poles are disturbed or removed, implementation of Mitigation Measure 4.6-8 will help minimize potential health and safety issues from the accidental release of or exposure to PCBs in soil or groundwater and will reduce impacts to a less than significant level.

**Hazardous Emissions within 0.25 Mile of an Existing or Proposed School.** Basin 7 of the project site is located approximately 0.25 mi south of Naples Elementary School; the other six basins are located within 1 mi of Naples Elementary School.<sup>1</sup> However, as stated above, the uses proposed are similar to existing land uses on site and are not expected to introduce significant amounts of hazardous materials or waste. Mitigation Measures 4.6-1 through 4.6-8 have been proposed to ensure that any hazardous emissions, materials, or substances would not pose a potentially significant impact on an existing or proposed school. Compliance with Mitigation Measures 4.6-1 through 4.6-8 would reduce any hazardous waste impacts to a less than significant level. Therefore, there would be no significant adverse hazard to the public

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<sup>1</sup> Long Beach Unified School District, Facility Master Plan, [http://www.dejongprojects.com/documents/Long%20Beach/lbusd\\_area\\_f.pdf](http://www.dejongprojects.com/documents/Long%20Beach/lbusd_area_f.pdf), accessed June 27, 2007.

or the environment through the routine handling, storage, transport, use, or disposal of hazardous materials and/or wastes as a result of the proposed project.

#### **4.6.6 MITIGATION MEASURES**

Implementation of the following mitigation measures will ensure that potential hazard and hazardous materials impacts resulting from project implementation would be reduced to less than significant levels.

The following measures are proposed to reduce hazards related to potentially hazardous dredge materials from Basin 1 to a less than significant level.

- 4.6-1** Prior to issuance of any permits allowing dredging in Basin 1, the City of Long Beach (City) shall conduct additional laboratory testing of the sediment materials from Basin 1. Additional testing shall be conducted prior to disposal of the contaminated soils to determine if concentrations of mercury exceed the Soluble Threshold Limit Concentration (STLC) for mercury at 0.2 milligrams per liter (mg/L) and are considered hazardous by State standards (California Code of Regulations [CCR], Title 22, Section 66261.1–66261.126), and/or are considered hazardous by federal standards (Resource Conservation Recovery Act [RCRA]), where mercury concentrations exceed the federal threshold of 0.2 mg/L, as determined from toxicity characteristic leaching procedure (TCLP) extract testing (TCLP method shall be determined by leaching potential).
- 4.6-2** Prior to issuance of any permits allowing dredging in Basin 1, the City of Long Beach shall conduct a Human Health Risk evaluation to determine the level of exposure to potentially hazardous levels of mercury during construction activities.
- 4.6-3** **Soil Management Plan:** The Office of Environmental Health Hazard Assessment (OEHHA) shall review the dredge materials removal workplan and shall list any additional requirements. Implementation of the workplan shall be overseen by the OEHHA for compliance with local, State, and federal regulations. Any additional sampling or contaminant material removal shall be subject to these same regulations. As part of the soil management plan, all disposal material will be characterized prior to disposal at a State landfill site. All hazardous waste will be disposed of in a Class I landfill. All other soils or solid waste will be disposed of at an unclassified landfill. In addition, during construction activities of the potentially impacted soils on site, monitoring

will be required by the South Coast Air Quality Management District (SCAQMD).

After removal of the contaminated materials from Basin 1 and during the drying process of these sediments/soils, a mixture of Simple Green and water (10:1) shall be lightly applied to the excavated sediments/soils. Simple Green accelerates the decomposition process and will have the overall result of shortening the duration of odor emissions.

The following measures are proposed to reduce hazards related to land side construction activities to a less than significant level.

**4.6-4** During all excavation activities, the Marine Bureau Manager shall ensure that all construction subcontractors comply with the appropriate health and safety measures required by the Occupational Safety and Health Administration (OSHA). In the event that groundwater is encountered during grading or excavation activities, all construction activities shall be terminated in the immediate area until the groundwater is investigated for potentially hazardous content. In the event that suspicious odors are observed in soil, construction shall also be terminated until the soil is properly characterized for hazardous waste content. Appropriate measures shall be taken in compliance with all applicable regulations for the characterization and disposal of hazardous materials.

**4.6-5** Prior to the issuance of any demolition permits and at least 10 days prior to any demolition work for proposed improvements, the Marine Bureau Manager shall notify and submit fees to the South Coast Air Quality Management District (SCAQMD) in compliance with SCAQMD Rule 1403, Asbestos Emissions from Demolition/Renovation Activities. Contractors shall adhere to the requirements of SCAQMD Rule 1403 during all construction and demolition activities.

The following measures are proposed to reduce hazards related to asbestos-containing materials and lead-based paints to a less than significant level.

**4.6-6** Prior to the issuance of any demolition permits, the Marine Bureau Manager shall provide evidence that a certified asbestos consultant has conducted an asbestos survey of the existing concrete materials. If asbestos-containing material (ACM) is found, it shall be removed and disposed of by a licensed and certified asbestos abatement contractor in accordance with requirements outlined by the local county health department.

- 4.6-7** Prior to the issuance of any demolition permits, the Marine Bureau Manager shall provide evidence that a certified lead-based paint (LBP) consultant has conducted LBP surveys in the areas where paint materials may be removed or disturbed on existing structures. If LBPs are found, they shall be removed and disposed of by a licensed and certified LBP contractor in accordance with requirements outlined by the local county health department.

The following measure is proposed to reduce hazards related to leaking transformers containing PCBs to a less than significant level.

- 4.6-8** Prior to the issuance of any demolition permits, the City of Long Beach shall conduct the inspection of utility pole-mounted transformers within the project area for leaks. Leaking transformers shall be considered a potential for polychlorinated biphenyl (PCB) hazard unless tested and shall be handled accordingly. If the removal of utility poles is anticipated, all treated wooden poles may have a potential for creosote. Areas immediately surrounding the utility pole shall be tested and handled accordingly.

#### **4.6.7 CUMULATIVE IMPACTS**

The cumulative study area for hazardous materials consisted of: (1) the area that could be affected by proposed project activities, and (2) areas on the proposed project site affected by other projects whose activities could directly or indirectly affect the presence or impact of hazardous materials. In general, only projects occurring adjacent to or very close to the project site are considered due to the limited potential impact area associated with release of hazardous materials into the environment. Currently, the following projects that have been proposed or approved but are not yet fully constructed are within the cumulative study area for the proposed project:

- Colorado Lagoon Restoration Project, currently under construction
- Second+PCH Mixed Use Commercial/Hotel/Residential Project
- Proposed Home Depot Project at Loynes Drive and Studebaker Road
- Termino Drain Project, various segments terminating at the northern end of Marina Stadium

Because the proposed project is scheduled to begin in 2011 and be implemented over 6 years, it is possible that the construction activity for the proposed project and construction for one of the cumulative projects identified above may occur at the same time. However, none of the cumulative projects listed above are in close enough proximity to the proposed project

site that they could be affected by proposed on-site project activities or directly or indirectly affect the presence or fate of hazardous materials on site.

Dredging activities associated with the proposed project do not pose a concern through the routine transport, use, or disposal of sediment material because the majority of the dredged basin materials will be disposed via barge to an ocean disposal site and will not be in proximity to the identified cumulative projects. Additionally, the contaminated dredge materials from Basin 1 will be tested prior to disposal and handled accordingly, as required by Mitigation Measures 4.6-2 and 4.6-3. Therefore, with implementation Mitigation Measures 4.6-2 and 4.6-3, the proposed project's transport, use, or disposal of contaminated sediment material will be reduced to a less than significant level and will not, in combination with the cumulative projects, cumulatively contribute to potential hazardous materials impacts.

Similarly, the potential health and safety risks related to the presence of ACMs and/or LBPs in existing building materials on site, and the release of potentially contaminated groundwater during construction, will be reduced with implementation of Mitigation Measures 4.6-6, 4.6-7, and 4.6-8. Therefore, these site-specific conditions will not, in combination with the cumulative projects, cumulatively contribute to potential hazardous materials impacts.

The proposed project includes the continuation of Marina uses that involve the use of limited amounts of hazardous materials and would not present a significant hazard to the environment with regulatory compliance procedures in place. In addition, because there will be a reduction in boat slips, there are projected to be fewer boats, with less possibility of contributing to cumulative environmental effects. Based on the distance to the nearest cumulative project and the amount of hazardous materials use associated with the proposed project and other hazardous materials effects from past, present, and reasonably foreseeable projects within the City, the project's contribution to cumulative impacts would be considered to be less than significant.

Furthermore, for the proposed project and all other projects in the area to be approved, each project is required to be consistent with the existing plans, programs, and policies related to hazards and hazardous materials. Consistency with these plans prevents this and other projects from creating cumulative impacts in terms of hazards and hazardous materials. Therefore, upon project compliance with the applicable existing local, State, and federal hazardous materials regulations and implementation of Mitigation Measures 4.6-1 through 4.6-8, the project's impacts related to hazards and hazardous materials are considered less than cumulative considerable.

#### **4.6.8 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS**

There are no significant unavoidable adverse hazards or hazardous materials impacts associated with the proposed project.