

4.9 HAZARDS AND HAZARDOUS MATERIALS

This section addresses potential hazards and hazardous material impacts at the project site and in the surrounding area that may result from implementation of the proposed project. The information contained in this section is based on a Phase I Initial Site Assessment (Phase I ISA) prepared by RBF Consulting (July 2010) for the La Pata Avenue Gap Closure and Camino Del Rio Extension Project. The Phase I ISA prepared by RBF Consulting is included in Appendix J of this Environmental Impact Report (EIR).

4.9.1 Existing Environmental Setting

4.9.1.1 Topography and Soils

The project site is characterized by moderate to steep hills, narrow ridgelines and knolls separated by narrow canyons, and localized drainages. The project site ranges in elevation from approximately 280 to 620 feet above mean sea level (amsl). The *Soil Survey of Orange County and Western Part of Riverside County, California – General Soils Map* describes the soils expected to be found in the study area as Alo-Bosanko association; these soils are found in strongly sloping to steep coastal foothills and typically consist of well-drained clays.

Drainage within the project limits occurs by downward surface percolation and overland sheet flow, which generally traverses the project area from east to west. On-site drainage is anticipated to be sheet flow that follows the general topography of the area in a western direction toward San Juan Creek and the Pacific Ocean. Four streams were noted during the Phase I ISA site reconnaissance that were observed to traverse the project limits in an east-west direction.

According to the Phase I ISA, groundwater flow is anticipated to follow the slope of the ground surface elevations toward the nearest open body of water or intermittent stream. The direction of groundwater is anticipated to generally flow in a westerly direction, toward San Juan Creek and the Pacific Ocean. However, information obtained from available files reviewed on GeoTracker, a State Water Resources Control Board (SWRCB) online database site, indicated that depth to groundwater within the project limits is anticipated to range from approximately 13 to 242 feet below ground surface (bgs) and that groundwater is anticipated to flow southwest.

4.9.1.2 Current/Past Uses of the Project Limits and Immediately Adjacent Areas

As stated previously under Chapter 3, Project Description, the existing La Pata Avenue south of Ortega Highway (State Route 74 [SR-74]) terminates at the north limits of the Prima Deshecha Landfill. As shown previously in Figure 3.2, there is an existing gap in La Pata Avenue from the north limits of the Landfill to Calle Saluda.

The proposed project is divided into three segments. The north segment extends from the north terminus of the project (2,700 feet south of SR-74) to the existing Prima Deshecha Landfill. The central segment is the portion of the proposed project that extends through the Landfill. The south segment extends from the Landfill on the north to the south terminus of the proposed project at Calle Saluda.

The proposed project alignment is surrounded by a variety of existing and planned residential, public facility (e.g., high school, landfill uses), commercial, utility (including Southern California Edison [SCE] and San Diego Gas and Electric [SDG&E] transmission corridors), open space, and recreation uses.

Current uses within the project limits consist of transportation uses and associated roadway (i.e. existing La Pata Avenue) in the north segment, active and planned Landfill activities in the central segment, and open space and vacant land in the south segment. Surrounding areas to the north are characterized by agricultural and vacant land uses while areas to the east consist of residential, vacant, and municipal (landfill) land uses. Surrounding areas to the east also include the Tierra Verde Green Waste Recycling Center, which is located east of the intersection of La Pata Avenue and Vista Montaña. Areas to the south are characterized by vacant and residential land uses, and areas to the west are characterized by residential, transportation, and municipal (landfill) land uses. Existing land uses within the project area are shown in Figure 4.1.3 of Chapter 4, Land Use, of this EIR.

Zoning within the project area consists of General Agriculture (A1) in the portions surrounding the project limits that are located within the unincorporated areas of Orange County, Planned Community (PC) and Solid Waste Facility (SWF) in the portions surrounding the project limits that are located within the City of San Juan Capistrano, and Talega Specific Plan Open Space (TSPOS) in the areas surrounding the project limits that are located within the City of San Clemente.

The Prima Deshecha Landfill is a 1,530-acre landfill site owned and operated by Integrated Orange County Waste and Recycling (OCWR) as a Class III landfill, which is permitted for the disposal of municipal solid waste and biosolids. The Landfill is located within three jurisdictions, consisting of unincorporated Orange County (827 acres), the City of San Juan Capistrano (570 acres), and the City of San Clemente (133 acres). Access to the Landfill is provided by Interstate 5 (I-5), SR-74, and La Pata Avenue. A Household Hazardous Waste Collection Center (HHWCC) is located on the east side of La Pata Avenue, near the entrance to the Landfill. This HHWCC serves as a facility where household hazardous waste can be dropped off and properly stored until such items can be hauled off site for disposal. The Prima Deshecha Landfill serves an estimated population of 400,000 people residing in the Cities of Laguna Niguel, Aliso Viejo, Mission Viejo, Rancho Santa Margarita, San Juan Capistrano, San Clemente, Dana Point, and unincorporated areas of Orange County.

The Prima Deshecha Landfill has 699 acres that are permitted for solid waste disposal. The Landfill receives a daily average of approximately 3,000 tons per day (tpd) of solid waste, but has the capacity to accept 4,000 tpd of solid waste. Of the 3,000 tpd average, 700 tpd are currently imported from San Diego and Los Angeles Counties; however, import contracts expire in 2015. As of June 30, 2005, the Landfill had a remaining air space capacity estimated at 147 million cubic yards (mcy). Site closure is estimated to occur in the year 2067, but may be potentially extended with appropriate permitting if refuse intake is lower than anticipated.¹

A commercial facility, the Tierra Verde Green Waste Recycling Center, is located east of the intersection of La Pata Avenue and Vista Montaña within the project limits. Tierra Verde Industries produces landscaping materials such as wood chips, mulch, top soil, colored sand, bark, granular surface rubber, playground wood chips, fertilizer, compost, and silica sand. Tierra Verde Industries

¹ OCWR Final Program EIR No. 575, 2001 Prima Deshecha General Development Plan.

currently leases the property from Rancho Mission Viejo (RMV). The Tierra Verde Industries lease will expire in 2014.

Review of the historical aerial photographs indicates that the majority of the project limits and immediately surrounding area remained primarily vacant or used for agricultural purposes prior to 1989. Based on an interview with Mr. David Wong, Site Engineer for the Prima Deshecha Landfill, the Landfill area has been used historically for cattle grazing purposes as a ranch, prior to the opening of the Landfill in 1976. Since 1976, the Landfill property has not been utilized for any other purpose besides its current use as a landfill and disposal facility.

As discussed previously in Chapter 3, utility companies with facilities in the project vicinity include SCE (electric transmission corridor), SDG&E (electric transmission corridor), Southern California Gas Company (SCGC; gas line), AT&T (communications system), Cox Communications (communications system), City of San Juan Capistrano (water), Santa Margarita Water District (SMWD) (water), and Kinder Morgan (fuel line). The utility relocations that are included in the proposed project were summarized earlier in Table 3.A and are identified on Figure 3.10 in Chapter 3, Project Description. It is anticipated that utility infrastructure relocations will necessitate modification to existing utility access roads and pole/structure pads. Currently, two major electrical utility easements (a 150-foot-wide SDG&E easement and a 200-foot-wide SCE easement) extend through the central portion of the Landfill. In addition, an existing pipeline transmitting methane and other landfill gasses from the active landfill operations at the Landfill to a gas-to-energy power plant and flare station crosses the roadway alignment just west of the Household Hazardous Waste Center.

Orange County Health Care Agency (OCHCA) records identified Algonquin Power, LLC (now NEO Prima Deshecha, LLC) as an on-site tenant of the Prima Deshecha Landfill. Landfill vapor is collected from the soil and then transformed into gaseous fuel through a Landfill Gas Plant, which is then used for electrical power at the Landfill. There are no changes proposed to the existing plant as a result of project implementation.

Use, Storage, and Disposal of Hazardous Substances and Petroleum Products. The north segment of the proposed project consists of an existing roadway, the central segment consists of the Prima Deshecha Landfill property, and the south segment consists of open space and undisturbed land. Therefore, only the central segment of the proposed project (the Landfill area) has the greatest potential to use, store, or dispose of hazardous substances or petroleum products.

Mr. Wong, Site Engineer for the Prima Deshecha Landfill, has been associated with the Landfill for 3 years. His responsibilities include overall site regulatory compliance and operations support. Mr. Wong stated that a portion of the proposed alignment located within the Landfill boundaries has been known to contain old landfill waste with unknown constituents. In addition, as stated previously, an HHWCC collecting only household hazardous waste and used oil from heavy equipment is located near the entrance to the Landfill. All hazardous materials and/or petroleum products that are collected at the HHWCC are stored until the waste is later hauled off site for proper disposal.

Aboveground and Underground Storage Tanks. As stated previously, the north segment of the proposed project consists of an existing roadway, the central segment consists of the Prima Deshecha Landfill property, and the south segment consists of open space, utility transmission infrastructure, and undisturbed land. The Landfill contains a number of aboveground storage tanks (ASTs) and underground storage tanks (USTs). Condensate, leachate, and groundwater tanks are located southwest of the Landfill property, and storage tanks storing water are located to the south of the main Landfill access road. According to Mr. Wong, a 12,000-gallon AST containing diesel fuel is currently located at the north access to the Landfill, and a leach field and septic holding tank is located adjacent to the Landfill office area. There have been no known leaks, spills or releases from these tanks. No USTs or ASTs are located within the project limits.

Existing Wells and Pipelines. A 22-inch high density polyethylene (HDPE) pipe connects the existing landfill gas (LFG) collection wells on the Prima Deshecha Landfill property to the flare, which continues to the power plant at the north access to the Landfill. There are several vertical LFG collection wells and associated conveyance piping located on the Landfill property, and at least one LFG subsurface migration probe located within the proposed project area. According to Mr. Wong, there are at least three active groundwater monitoring wells within the vicinity of the proposed project.

No existing or historical oil or gas wells are identified within or immediately adjacent to the project limits, and the proposed project is not located within a known oil or gas field. However, nine plugged and abandoned dry hole wells and one plugged and abandoned oil well are located within approximately 1 mile of the proposed project limits. The closest well to the project site is located approximately 500 feet west of the proposed project limits and is identified as the "George L. Guthrie" well.¹

As of 2008, a total of 15 groundwater monitoring wells, two piezometers, and four extraction wells are located at the Prima Deshecha Landfill. Semi-annual water quality monitoring reports are submitted to the Regional Water Quality Control Board (RWQCB). The closest known active groundwater supply wells are located approximately 2 miles from the Landfill in a separate watershed. Groundwater samples from the most recent water quality report do not indicate the presence of volatile organic compounds (VOCs), sulfate, chloride, nitrate, and total dissolved solids as a result of landfill operations.

Thermoplastic Paint. Implementation of the proposed improvements may require the removal and disposal of yellow traffic striping and pavement marking materials (paint, thermoplastic, permanent tape, and temporary tape). Such roadway markings were observed during the site reconnaissance on June 3, 2009. Yellow paints made prior to 1995 may exceed hazardous waste criteria under Title 22, California Code of Regulations (CCR) for lead, and require disposal in a Class I disposal site.

¹ California Department of Oil, Gas, and Geothermal Resources (DOGGR), Wildcat Map #W1-4, Counties of Orange, Riverside, and San Bernardino, http://www.consrv.ca.gov/DOG/maps/Pages/dl_index_map1.aspx, accessed May 28, 2009.

Aerially Deposited Lead. Aerially deposited lead (ADL) from past use of leaded fuels is a concern in unpaved areas adjacent to roads. Lead has been blended with gasoline, primarily to boost octane levels, since the early 1920s. Effective January 1, 1996, the federal Clean Air Act (CAA) banned the sale of the small amount of leaded fuel that was still available in some parts of the country for use in on-road vehicles. Historically, there has been relatively low usage of the existing La Pata Avenue due to limited development within the surrounding area. The existing La Pata Avenue terminates at the entrance to the Prima Deshecha Landfill and does not provide connection to other roadways or serve any other land uses. Development within the surrounding area of the proposed project limits has only occurred in recent years. Based on these assumptions, the potential for ADL to occur in unpaved areas adjacent to the existing roadway is low. However, the existing La Pata Avenue segment was built in the 1970s, prior to the ban of leaded fuels. Therefore, the potential for ADL in unpaved areas adjacent to La Pata Avenue and Camino Del Rio remains.

Polychlorinated Biphenyls. Polychlorinated biphenyls (PCBs) were used in electrical transformers manufactured between 1929 and 1977. SCE, one of the two local electrical service providers in the project area, disclosed in a memorandum that the concentration of PCBs in 96 percent of their transformers was less than 50 parts per million (ppm). In the remaining 4 percent of SCE transformers, the concentration of PCBs is generally between 50 and 100 ppm, well below the United States Environmental Protection Agency's (EPA) designation of 500 ppm as being PCB-containing. Utility companies have replaced most PCB-containing transformers over the past 20 years, and transformers are not considered a potential environmental concern unless they are leaking.

On-site pad-mounted transformers were noted in various locations along the proposed project alignment during the June 3, 2009, site inspection conducted as part of the Phase I ISA. Prior to 1976, PCBs were commonly used in dielectric fluids in transformers, capacitors, and light ballasts. No spills, staining, or leaks were observed around the transformers. Utility companies have replaced most PCB-containing transformers over the past 20 years, and transformers are not considered a potential environmental concern unless they are leaking.

Environmental Database Search and Regulatory Agency File Reviews. The California Environmental Protection Agency (CalEPA) Hazardous Waste and Substances Sites List (Cortese List) is a planning document used by the State, local agencies, and developers to comply with California Environmental Quality Act (CEQA) requirements in providing information about the location of hazardous materials release sites. The Cortese List, named after the legislator who authored the legislation that enacted it, includes (but is not limited to) identified hazardous waste facilities, land designated as hazardous waste property, sites included in the Abandoned Site Assessment Program, and USTs for which an unauthorized release report is filed. Government Code Section 65962.5 requires CalEPA to develop (at least annually) an updated Cortese List. The Department of Toxic Substances Control (DTSC) is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous materials release information for the Cortese List. None of the parcels comprising the proposed project are listed on the Cortese List pursuant to Government Code Section 65962.5. A review of a commercial database summary provided by EDR, Inc. (Appendix B of the Phase I ISA) of federal, State, and local regulatory agency records pertinent to the subject property and off-site facilities located within American Society for Testing and

Materials (ASTM) specific search distances for the subject property. The EDR report also identifies the presence or absence of properties that may be listed on the Cortese List within the project limits. A description of some of the general databases evaluated within an environmental database search is provided in Table 4.9.1.

Table 4.9.1: Regulatory Databases

Acronym	Name	Description
Federal		
NPL	National Priorities List	The United States Environmental Protection Agency's (EPA) registry of the nation's worst uncontrolled or abandoned hazardous waste sites. NPL sites are targeted for possible long-term remedial action under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System	A comprehensive listing of known or suspected uncontrolled or abandoned hazardous waste sites. These sites have either been investigated or are currently under investigation by the EPA for the release, or threatened release, of hazardous substances.
CERCLIS-NFRAP	Comprehensive Environmental Response, Compensation, and Liability Information System – No Further Remedial Action Planned	As of February 1995, CERCLIS sites designated "NFRAP" have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, the contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require federal Superfund action or NPL consideration. The EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so the EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors, and affected citizens promote economic redevelopment of unproductive urban sites.
CORRACTS	Corrective Action Sites	This database contains information concerning Resource Conservation and Recovery Act (RCRA) facilities that have conducted or are currently conducting a corrective action. A Corrective Action Order is issued pursuant to RCRA Section 3008(h) when there has been a release of hazardous waste or constituents into the environment from an RCRA facility. Corrective actions may also be imposed as a requirement for receiving and maintaining a Treatment, Storage, and Disposal Facilities (TSDF) permit.
RCRA TSDF	Resource Conservation and Recovery Information System (RCRIS)	The EPA's RCRA program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA facilities database is a compilation by the EPA of facilities that report generation, storage, transportation, treatment, or disposal of hazardous waste.
RCRA LQGs	RCRA Large-Quantity Generators	The EPA's RCRA program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA facilities database is a compilation by the EPA of facilities that report generation, storage, transportation, treatment, or disposal of hazardous waste. RCRA LQGs

Table 4.9.1: Regulatory Databases

Acronym	Name	Description
		are facilities that generate at least 1,000 kilograms (kg)/month of nonacutely hazardous waste (or 1 kg/month of acutely hazardous waste).
RCRA SQGs	RCRA Small-Quantity Generators	The EPA's RCRA program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA facilities database is a compilation by the EPA of facilities that report generation, storage, transportation, treatment, or disposal of hazardous waste. RCRA SQGs are facilities that generate less than 1,000 kg/month of nonacutely hazardous waste.
RCRA NLR	RCRA No Longer Reporting	The EPA's program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA facilities database is a compilation by the EPA of facilities that report generation, storage, transportation, treatment, or disposal of hazardous waste. The RCRA NLR database is a compilation of the facilities not currently classified by the EPA but still included in the RCRIS database. Reasons for nonclassification include failure to report in a timely manner, being no longer in business, being no longer in business at the listed address, and no longer generating hazardous waste materials in quantities that require reporting.
Federal IC/EC	Federal Engineering and Institutional Controls	The Brownfields Management System (BMS) is a national database system designed to assist the EPA in collecting, tracking, and updating information, as well as reporting on the major activities and accomplishments of the various Brownfield grant programs. IC/EC lists Superfund sites that have either an engineering or an institutional control.
ERNS	Emergency Response Notification System	ERNS is a national computer database system used to store information on the sudden and/or accidental release of hazardous substances, including petroleum, into the environment. The ERNS reporting system contains preliminary information on specific releases, including the spill location, the substance released, and the responsible party.
Tribal Lands	Indian Lands of the United States	Database of areas with boundaries established by treaty, statute, and/or executive or court order and recognized by the federal government as territories in which Native American tribes have primary governmental authority. The Indian Lands of the United States map layer shows areas of 640 acres or more that are administered by the United States Bureau of Indian Affairs. Included are federally administered lands within a reservation that may or may not be considered part of the reservation.
State		
Tribal Voluntary Cleanup Program (VCP)	Site Mitigation and Brownfields Reuse Program Database (SMBRPD)/CalSites	The California Department of Toxic Substances Control (DTSC) has developed an electronic database system with information on sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The SMBRPD, also known as CalSites, is used primarily by DTSC as an information tool to evaluate and track activities at properties that may have been affected by the release of hazardous substances.

Table 4.9.1: Regulatory Databases

Acronym	Name	Description
Spills 90	Spills List	Provided by Regional Water Quality Control Boards (RWQCBs) 1 through 9. The California RWQCBs maintain reports of sites that have records of spills, leaks, investigations, and cleanups.
Solid Waste Landfill (SWL)	<p>Solid Waste Facility/Landfill (SWF/LF)</p> <p>State Waste Management Unit Data System (WMUDS)</p> <p>Solid Waste Information System (SWIS) maintained by CalRecycle www.calrecycle.ca.gov/SWFacilities/Directory/Search.aspx</p>	<p>This database tracks closed and inactive landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities on landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for SWLs or disposal sites.</p> <p>This database is provided by the State Water Resources Control Board (SWRCB) and used for program tracking and inventory of waste management units. It contains information from the facility and waste management unit, Solid Waste Assessment Test (SWAT) program and report summary information, Chapter 15 (formerly Subchapter 15) information, Toxic Pits Cleanup Act (TPCA) and RCRA program information, and closure information. It also contains some information from the Waste Discharge System (WDS).</p> <p>The Solid Waste Information System (SWIS) database contains information on solid waste facilities, operations, and disposal sites throughout the State of California. The types of facilities found in this database include landfills, transfer stations, material recovery facilities, composting sites, transformation facilities, waste tire sites, and closed disposal sites.</p> <p>For each facility, the database contains information about location, owner, operator, facility type, regulatory and operational status, authorized waste types, local enforcement agency and inspection and enforcement records.</p>
UST	Underground Storage Tank	The historical database of registered USTs is provided by the SWRCB, Office of Underground Storage Tanks. Refer to the local-level UST list for more current information. Some states do not require registration of heating oil tanks, especially those used for residential purposes.
AST	Aboveground Storage Tank	This is a database of registered ASTs provided by the SWRCB.
LUST	Leaking Underground Storage Tank	This database is maintained by the SWRCB. LUST records contain an inventory of reported LUST incidents. Not all states maintain these records, and the information stored varies state by state.
Tribal IC	Deed-Restricted Sites Listing	The California Environmental Protection Agency's (CalEPA's) DTSC Board maintains a list of deed-restricted sites, or properties where the DTSC has placed limits or requirements on the future use of the property due to the varying levels of cleanup possible, practical, or necessary at the site.

Table 4.9.1: Regulatory Databases

Acronym	Name	Description
State Permit	CA County–San Diego	San Diego Hazardous Materials Permits–Handlers and Generators Permit information. This database is maintained by the Hazardous Materials Division.
State Other	CalEPA/County SMBRPD/CalSites	The CalEPA DTSC has developed an electronic database system with information on sites that are known to be contaminated with hazardous substances and information on uncharacterized properties where further studies may reveal problems. The SMBRPD, also known as CalSites, has information to evaluate and track activities at properties that may have been affected by the release of hazardous substances.

4.9.1.3 On-site Regulatory-Listed Facilities

Prima Deshecha Landfill Facility (32250 La Pata Avenue). This site was listed within the project limits under the following regulatory databases: Hazardous Waste Manifests System (HAZNET), Facility Index System/Facility Registry System (FINDS), Emissions Inventory (EMI), Solid Waste Facility/Landfill Facility (SWF/LF), AST, California Waste Discharge System (CA WDS), and Land Disposal Site (LDS) databases. Details regarding the types of databases listed above are provided in Table 4.9.2.

The Prima Deshecha Landfill site has reported oil/water separation sludge, unspecific oil-containing waste, other organic solids, aqueous solution with less than 10 percent total organic residues, degreasing sludge, household waste, and unspecified organic liquid mixture. The disposal methods for these wastes include recycling, transferring off site, and tank treatment. Reported emissions at the site include oxides of nitrogen and sulfur, particulate matter, carbon monoxide, total organic hydrocarbon gases, and reactive organic gases during the years of 1996 and 2002 through 2004. The Landfill is a reported permitted solid waste landfill, with no reported releases.

Regulatory agency file reviews were completed for this site at the Orange County Fire Authority (OCFA) on January 13, 2009, and OCHCA on June 18, 2009. According to files reviewed at OCFA, the last inspection date at this site was January 13, 2009. Permits issued for flammable/combustible liquid containers or drums, hazardous materials (water reactive, corrosive, and toxic), liquefied petroleum gas, and motor vehicle dispensing were reported to have been issued on January 15, 2009.

The OCFA files also indicated that the site stored various types of waste oil, waste flammable liquids/solids, waste oil filters, waste corrosive liquids/solids, waste batteries, waste propane, waste latex paint, waste fluorescent lamps, waste aerosols, oxygen, lubricating grease, motor oil, antifreeze, diesel, waste poison solids, electronic waste, acetylene, nitrogen, helium, and toxic/inert/flammable gas mixtures. The OCFA identifies hazardous risk categories for facilities and has classified the Prima Deshecha Landfill site as risk Category 4, with low/routine hazards. No violations were reported at the site during recent inspections.

Table 4.9.2: Regulatory Database Listings for the Prima Deshecha Landfill Site

Regulatory Database	Regulatory Database Information
Hazardous Waste Manifests System (HAZNET)	The HAZNET database extracts data from the copies of hazardous waste manifests received each year by the Department of Toxic Substances Control (DTSC). The annual volume of manifests is typically 700,000 to 1,000,000 annually, representing approximately 350,000 to 500,000 shipments. Data from non-California manifests and continuation sheets are not included at the present time. Data from the manifests are submitted without correction, and therefore many contain some invalid values for the data elements such as generator identification, treatment, storage, and disposal identification, waste category, and disposal method. The source for this database is the DTSC.
Facility Index System/Facility Registry System (FINDS)	The FINDS database contains both facility information and links to other sources that may provide more detail on the facility. The FINDS databases that have been included in the Phase I Initial Site Assessment (ISA) include: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket system used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (Polychlorinated Biphenyl Activity Data System).
Emissions Inventory (EMI)	The EMI database maintains information on toxics and criteria pollutant emissions data collected by the California Air Resources Board (ARB) and local air pollution agencies.
Solid Waste Facility/Landfill (SWF/LF)	The SWF/LF database contains information on active, closed, and inactive landfills. Records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet Resource Conservation and Recovery Act (RCRA) Section 4004 criteria for solid waste landfills or disposal sites.
Aboveground Storage Tank (AST)	The AST database contains information on sites that maintain ASTs.
California Waste Discharge System (CA WDS)	The CA WDS lists sites that have been issued waste discharge requirements.
Land Disposal Site (LDS)	The LDS database lists sites regulated for waste discharge to land for treatment, storage, and disposal in waste management units.

Additional routine hazardous material inspections at the Landfill were conducted by OCHCA from the years of 1991 to 2008. Files obtained from OCHCA indicate that routine inspections conducted from 2007 to 2008 have reported that hazardous waste stored on site was properly contained and labeled. However, a 2006 inspection reported violations of bulking of waste and no operation plan. A 2007 inspection noted open drums of used oil and coolant. Inspections in 2008 reported that all drums were stored and labeled properly with secondary containment, and no leaks were observed.

Tierra Verde Green Waste Recycling Center (31748 La Pata Avenue). OCFA records indicate that the last inspection date at this site was October 8, 2008. Permits were reissued for combustible liquid containers/drums on August 15, 2008. This site is also known to store multiple types of torque fluid, industrial grease, hydraulic fluid, solvent, diesel fuel, oxygen, and motor oil, and is classified as

risk Category 4, with low/routine type hazards. OCHCA records indicate that this green waste facility received violations for hazardous waste storage and recordkeeping during a routine inspection conducted in 2006.

Off-site Regulatory Facilities. Nineteen sites of potential concern within up to a 1-mile radius of the project limits were identified within the environmental database search. Information on sites listed in the environmental database search is generally obtained from available federal, state, and local agency file records. Sites identified within an environmental database search include sites with known releases to soil and/or groundwater, businesses that handle or dispose of hazardous waste on site, solid waste disposal sites, and sites that have undergone or are currently undergoing remediation under the supervision of a federal, state, or local agency. According to the Phase I ISA, the 19 listed regulatory sites are considered to have a low potential of affecting the proposed project for one or more of the following reasons: distance to the proposed project limits, direction of anticipated groundwater flow, site status, or no reported contamination at the site. Please refer to Appendix B of the Phase I ISA for a complete listing of the 19 regulatory sites.

Orange County Fire Authority Fire Station No. 59 (48 Avenida La Pata). OCFA records indicate that the last inspection date at this site was March 9, 2009, and a permit for flammable/combustible liquid tanks was reissued on January 15, 2009. Diesel is also reported to be stored and maintained on site. Fire Station No. 59 is reported as risk Category 5, indicating the absence of hazardous materials.

4.9.1.4 Aviation

Located in the City of Santa Ana, John Wayne Airport (JWA) is the closest major airport at approximately 18 miles north-northwest from the proposed project limits. On an average business day, approximately 150 commercial and 20 regional flights arrive at and depart from JWA. The proposed project is not located within the JWA land use plan and is not located within the vicinity of a private airstrip.

Accidents resulting in one or more fatalities involving commercial aircraft are rare events. In the event of an aviation hazard, pilots are instructed to follow Newport Bay away from residential or developed areas. The airport is protected by on-site airport fire services as required by Federal Aviation Administration (FAA) regulations. This service is provided by OCFA Fire Station No. 33. In addition, the Orange County Fire Services Area Plan Annex contains a Marine (Air/Sea) Disaster Response Plan that establishes protocols for marine disasters in the harbor or ocean from either aircraft or boating accidents. This plan includes a countywide mutual aid response to a disaster.

4.9.2 Regulatory Setting

Hazardous waste is the unused or leftover portion of any hazardous chemicals or materials. Any leftover product that is labeled with the words danger, warning, toxic, caution, poison, flammable, corrosive, or reactive is considered a hazardous waste. Universal waste, also considered to be hazardous, includes consumer batteries, light bulbs, light tubes, and mercury-containing items. Regulations govern the collection and management of these widely generated wastes, thus facilitating

environmentally sound collection and proper recycling or treatment. These regulations ease the regulatory burden on retail stores and others that wish to collect hazardous wastes and encourage the development of municipal and commercial programs to reduce the quantity of these wastes going to municipal solid waste landfills or combustors. In addition, the regulations also ensure that the wastes subject to this system will go to appropriate treatment or recycling facilities pursuant to the full hazardous waste regulatory controls.

Hazardous wastes must be disposed of only at State-permitted treatment, storage, or disposal facilities. Hazardous wastes may not be disposed of in the regular trash or onto the surface of the ground or into the storm drain. Businesses that generate less than 27 gallons or 220 pounds of hazardous waste per month or less than 1 quart or 2.2 pounds of acutely hazardous waste (referred to as Conditionally Exempt Small Quantity Generators [CESQGs]) may use the County's Household Hazardous Waste Disposal Program for small businesses.

As described below, every hazardous waste generator is required to have an emergency contingency plan (business plan) designed to minimize hazards to human health and the environment from fires, explosions, or an unplanned release of hazardous waste to air, soil, or surface water. The plan is carried out immediately whenever a fire, explosion, or unplanned chemical release occurs.

4.9.2.1 State and Federal Regulations

Hazardous Materials. The federal Toxic Substances Control Act (TSCA) of 1976 regulates chemical substances, which are substances and mixtures that might pose unreasonable risks of injury to human health or the environment. TSCA authorizes the EPA to require manufacturers to test their chemical products to determine their "toxic effects" and provide this information to the EPA for agency review before commercial manufacture is permitted.

Businesses that utilize hazardous materials are subject to Emergency Planning and Community Right-to-Know (Proposition 65) requirements as set forth in Title III of the Superfund Amendments and Reauthorization Act (SARA) and the California Waters Bill. These regulations require worker notification of hazardous substances in the workplace.

The State Waters Bill (Assembly Bill [AB] 2185 et al.), set forth in California Health and Safety Code Sections 25500–25545, requires businesses that utilize hazardous materials above certain thresholds to prepare on-site "business plans" for possible emergencies involving those materials and to provide copies of the plans to local emergency response agencies. The business plan must include an Inventory List and an Emergency Action Plan. Minimum thresholds are as follows:

- **Liquids:** 55 gallons
- **Solids:** 500 pounds
- **Compressed Gases:** 200 cubic feet (measured at standard temperature and pressure)
- **Radioactive:** Quantities that exceed Nuclear Regulatory Commission thresholds requiring the preparation of emergency plans (10 Code of Federal Regulations [CFR] Parts 30, 40, and 70)

Exemptions from these thresholds include the following:

- Hazardous materials stored as consumer packages for direct distribution to the general public
- Up to 1,000 cubic feet of oxygen, nitrous oxide, and/or nitrogen stored by physicians, dentists, podiatrists, veterinarians, and pharmacists
- Up to 55 gallons of any lubricating oil and up to 275 gallons of all lubricating oil stored by one business

AB 2185 requires an administering agency to oversee hazardous materials and waste laws. The Certified Unified Program Agency (CUPA) implements program elements either directly or in coordination with affiliated Participating Agencies (PA). Business Plans for operations subject to the AB 2185 are reviewed and approved by CUPA. CUPA also conducts inspections of these facilities. CUPA has the authority to require business plans for facilities that do not meet the minimum requirements if it determines that CUPA oversight is needed due to the type of facility or location. The CUPA for the proposed project is the OCHCA.

Hazardous Waste. Federal and California laws provide for “cradle to grave” regulation of hazardous wastes (i.e., the regulations govern a hazardous waste from its point of generation to its point of disposal at an approved landfill or incinerating facility). The federal hazardous waste law is known as the Resource Conservation and Recovery Act (RCRA) (40 CFR 240 et seq.). California has merged its RCRA authority into ongoing implementation of the State Hazardous Waste Control Law (HWCL), which was initially adopted in 1972 (22 CCR Section 66260.1 et seq.).

The EPA has primary responsibility for implementing the RCRA, and the California DTSC is the State’s lead agency in implementing HWCL and RCRA provisions. California allows county and city health departments and other local agencies to implement certain HWCL provisions regulating hazardous waste generators under terms of Memorandums of Understanding (MOUs) with the DTSC.

All RCRA-regulated and California-regulated hazardous waste must be recorded on hazardous waste manifests with copies sent to DTSC. The manifest is a way of tracking hazardous waste from its inception to its disposal. The proposed project is subject to these requirements for disposal and transport of hazardous waste. Within its jurisdictional area, the CUPA receives copies of hazardous waste manifests for tracking purposes. Hazardous materials emergency response is provided by OCFA under the Orange County-City Hazardous Material Emergency Response Authority, a joint powers agency.

Occupational Safety and Health. The federal Occupational Safety and Health Act of 1970 (OSH Act) (40 CFR 1902–1990) is the principal national law providing for worker safety and right-to-know. The broad policy goal of the act is “to assure so far as possible every working man and woman in the Nation a safe and healthful working environment.” It is implemented by the United States Occupational Safety and Health Administration (OSHA), whose responsibilities include developing and promulgating occupational safety and health standards and ensuring that these standards are administered and enforced nationwide.

The federal OSH Act allows states to administer OSHA requirements after submitting a State plan. The California Occupational Safety and Health Administration (Cal/OSHA) administers OSHA standards applicable to private employers within the State, along with additional authority provided by the California Occupational Safety and Health Act of 1973 (State OSH Act) (8 CCR, Sections 330–8618). These regulations are applicable to construction workers. Complaints regarding health and safety issues at the project site would be investigated by Cal/OSHA.

Asbestos-containing Materials. Asbestos-containing materials (ACM) products that are presently banned include corrugated paper, rollboard, commercial and specialty paper, flooring felt, and new uses of asbestos. Revisions to regulations issued by OSHA (June 30, 1995) require that all thermal system insulation, surfacing materials, and resilient flooring materials installed prior to 1981 be considered “presumed” asbestos-containing materials (PACMs) and treated accordingly. In order to rebut the designation as PACM, OSHA requires that these materials be surveyed, sampled, and assessed in accordance with 40 CFR 763 (Asbestos Hazard Emergency Response Act [AHERA]).

All asbestos should be removed from structures and disposed of in accordance with local, State, and federal regulations prior to renovation or demolition activities that would affect structures containing asbestos. Release of asbestos into the environment is a violation of several laws, including OSHA, RCRA, the CAA, and the Clean Water Act (CWA).

Lead. Lead has been used in commercial, residential, roadway, and ceramic paint products; in electric batteries and other devices; as a gasoline additive; for weighting in gunshot; and for other purposes. It is recognized as toxic to human health and the environment and is widely regulated in the United States. Buildings constructed prior to 1978 are presumed to contain lead-based paint (LBP) unless proven otherwise, although buildings constructed after 1978 may also contain LBP. Lead is regulated as a “criteria” pollutant under the CAA, which has led to its elimination from automotive fuels. ADL from past use of leaded fuels is a concern in unpaved areas adjacent to highly traveled roadways. Lead is also regulated as a toxic pollutant under the CWA and the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) as well as under the federal and California Safe Drinking Water Acts.

All LBP above regulatory thresholds should be removed from structures and disposed of in accordance with local, State, and federal regulations prior to renovation or demolition activities that would affect structures that contain LBP or soils adjacent to structures that contain LBP. Release of LBP into the environment is a violation of several laws, including OSHA, RCRA, the CAA, and the CWA.

Polychlorinated Biphenyls. Standard equipment suspected of potentially containing PCBs includes industrial-capacity transformers, fluorescent light ballasts, and oil-cooled machinery. All PCB-designated transformers were required to be replaced with non-PCB-designated transformers after PCBs were designated as a carcinogen by the EPA in 1977. Transformers are currently classified as PCB-containing if their cooling oils contain greater than 50 milligrams per liter total PCBs. The management of PCB-containing transformers is the responsibility of the local utility or the

transformer owner. Samples must be taken from the transformer in order to determine the presence or absence of PCBs.

CalRecycle. On January 1, 2010, in an effort to streamline waste diversion efforts into the new Department of Resources and Recycling, CalRecycle replaced the California Integrated Waste Management Board (CIWMB) as the new home of California's recycling and waste reduction efforts. CalRecycle manages programs created through two landmark initiatives, the Integrated Waste Management Act and the Beverage Container Recycling and Litter Reduction Act, which were formerly part of the CIWMB and the Department of Conservation (DOC). CalRecycle merges the duties of the former CIWMB with those of DOC's Division of Recycling to best protect public health and the environment by effectively and efficiently managing California's waste disposal and recycling efforts.

CalRecycle is also responsible for the disbursement of grants and loans to help California cities, counties, businesses, and organizations meet the State's waste reduction, reuse, and recycling goals. CalRecycle also provides funds to clean up solid waste disposal sites and develops and promotes alternatives to the illegal disposal of used oil, technical standards and permit requirements for waste tire facilities, and promotes reuse and recycling of electronic devices.

CalRecycle is responsible for ensuring that State waste management programs are primarily carried out through Local Enforcement Agencies (LEAs). LEAs have the primary responsibility for ensuring the correct operation and closure of solid waste facilities in the State. They also have responsibilities for guaranteeing the proper storage and transportation of solid wastes. The designated LEA for this project is identified as the OCHCA.

4.9.2.2 Local Plans and Regulations

City of San Clemente Emergency Plan. The City of San Clemente Emergency Plan designates procedures that will be followed in responding to anticipated emergencies within the City of San Clemente. The purpose of the City of San Clemente's Emergency Plan is to protect life and property from the effect of hazardous events. The San Clemente Emergency Plan is an extension of the California Emergency Plan, which was developed in accordance with provisions of the California Emergency Services Act, as well as other federal and State laws including but not limited to the Standardized Emergency Management System (SEMS), CCR Title 19, Chapter 2, Subchapter 3, Section 2620 et seq., and the Federal Civil Defense Act of 1950 (Public Law 920, as amended). Figure 3.3 of the San Clemente Emergency Plan illustrates the evacuation routes for the City. According to Figure 3.3, primary evacuation routes include east-west routes such as SR-74, Vista Hermosa, Camino De Los Mares, and Avenida Pico to the I-5.

City of San Juan Capistrano Emergency Plan. The City of San Juan Capistrano's Emergency Plan (December 2003) designates procedures that will be followed in responding to anticipated emergencies within the City of San Juan Capistrano. The Emergency Plan was developed using the SEMS format and describes how the City of San Juan Capistrano will prepare for, respond to, and recover from an emergency or disaster. The Emergency Plan identifies evacuation routes, emergency facilities, and City of San Juan Capistrano personnel and equipment available to effectively deal with

emergency situations. The Emergency Plan is consistent with State and federal guidelines regarding disaster planning. Local emergency preparedness plans, such as the City of San Juan Capistrano's Emergency Response Plan, serve as extensions of the California Emergency Plan (CEP) and the Emergency Response Management Plan (ERMP).

The County of Orange Emergency Response Plan. The County of Orange Emergency Response Plan provides a detailed summary of the countywide organization and identifies the responsibilities of each component agency in the event of a disaster. The Orange County and Operational Area Emergency Operations Center (OC OA/EOC) is used for managing disaster response and recovery for County agencies and departments and constituents served by the County. The OC OA/EOC coordinates disaster response and recovery for its operational area (including all political subdivisions of Orange County) and coordinates operations resource requirements and availability with the State Regional Operations Center. The OC OA/EOC acts as a central point for coordination and operational, administrative, and support needs of the emergency workers. The OC OA/EOC is staffed with personnel from all agencies within the County and various operational area jurisdictions and agencies.

Orange County Waste and Recycling Emergency Action Plan. The OCWR Emergency Action Plan (EAP) (June 2009) serves as the designated emergency response plan for the Prima Deshecha Landfill. The EAP provides procedures for evacuation-specific emergencies related to the existing landfill gas collection and flare systems, landfill leachate and condensate collection systems, and landfill gas extraction and treatment systems. The EAP also provides information on first aid and procedures for specific emergencies for such hazards as fire, earthquake, the release of hazardous materials, flooding, bomb threats, or an emergency at the San Onofre Nuclear Generating Station (SONGS). The main evacuation route is La Pata Avenue. However, Camino De Los Mares can also serve as a secondary evacuation route.

Fire Safety Regulations. The majority of the area west of the proposed project limits would be located in a Wildland Fire Area (Safety Element of the San Juan Capistrano General Plan). The majority of the areas to the east of the proposed project limits are located in an area characterized as a Very High Fire Hazard Severity Zone. This information was verified in the Fire and Resource Assessment Program Draft Fire Hazard Severity Zones in Local Responsibility Areas Map for the City of San Clemente (September 17, 2007). The OCFA Wildland Fire Defense Planning and Prevention program works with stakeholders and jurisdictions that manage large, open space areas to support them in understanding fire risks and potential losses due to wildland fire, and assists these stakeholders and jurisdictions in developing plans to mitigate risks and protect these lands. Wildland Fire Defense Planning and Prevention also oversees OCFA's READY! SET! GO! program, which includes the reduction of wildland fire risks through a formalized fuel modification inspection and enforcement program. This unit also monitors wildland and vegetation conditions to identify potential hazards, ensuring communities in the wildland urban interface areas are better protected from the risk of wildland fire.

The proposed project is located within a Special Fire Protection Area (SFPA) of the County of Orange, as established by Ordinance 99-17, 99-10. The SFPA classification is the County's response

to implementation of the Bates Bill (AB 337), which is incorporated into the California Government Code, Sections 51175 to 51189, inclusive. AB 337 was enacted by the California legislature on January 1, 1993, in response to the devastation in terms of loss of life and/or property caused by the Oakland/Berkeley Hills fire of 1993. The purpose of the legislation was to graphically identify the urban/wildland interface (where homes border on natural open space areas), identify these areas as being of extreme fire hazard potential, and apply a specific criteria of fire prevention measures upon any project proposed within these areas. Certain grading requirements including the maximum grades and minimum widths are applicable to roadway projects. For example, the maximum grade is 10 percent. The minimum width with no parking on either side is 24 feet from curb face to curb face, and the minimum width with parking on one side is 28 feet from curb face to curb face. AB 337 requires local agencies that have property within the SFPA boundary to take certain actions to implement a fire prevention policy and annual related implementation procedures in those zones. This legislation was enacted in an effort to minimize the potential for property destruction or loss of life caused by wildland conflagrations.

City and County General Plans.

County of Orange. Specific applicable goals and policies related to fire safety within the County of Orange are listed below:

- **Goal 1:** Provide a safe living environment, ensuring adequate fire protection facilities and resources to prevent and minimize the loss of life and property fire.
 - **Policy 1:** To encourage periodic updating of fire hazard mapping and continue to analyze existing fire hazard data as it pertains to Orange County.
 - **Policy 13:** To improve emergency response times for emergency responders through the use of computer-aided dispatch system and “preempt traffic signal control” system.

Specific applicable objectives in the County of Orange Public Safety Element are listed below:

- **Objective 1.1:** To identify public safety hazards and determine the relative threat to people and property in Orange County.

City of San Clemente. The City of San Clemente’s General Plan states the following goals for hazardous uses and materials within the City of San Clemente:

- Protect public health, safety, and welfare, and the environment in San Clemente City through the proper planning for hazardous waste management and the implementation of the Orange County Hazardous Waste Management Plan;
- Promote proper operations management of hazardous materials operations and enforce applicable regulations;
- Ensure a coordinated and effective emergency response system;
- Minimize the threat of surface and subsurface water contamination and promote restoration of healthful groundwater resources

Specific applicable objectives and policies related to emergency preparedness within the City of San Clemente are listed below:

- **Objective 12.7:** Provide effective response in a disaster, for life-saving and the curtailment of property damage and social dislocation; enhance emergency preparedness through maximum integration with the San Onofre Nuclear Generating Station related emergency plans, community education and self-help programs; and minimize to the greatest extent feasible serious damage and injuries through effective hazard mitigation.

Specific applicable objectives and policies related to hazardous waste operations within the City of San Clemente are listed below:

- **Objective 15.2:** Protect the public from the risks of hazardous uses/materials in transport, handling, storage and disposal.
 - **Policy 15.2.4:** Continue to work with the County which operates a household hazardous waste collection facility at the Prima Deshecha Landfill.

Specific applicable objectives and policies related to emergency response planning within the City of San Clemente are listed below:

- **Objective 15.3:** Prevent loss of life, serious injuries and major economic disruption caused by hazardous uses/materials and related accidents.

The consistency of the proposed project with these policies is summarized in Appendix N of this EIR.

4.9.3 Methodology

As described above, the information contained in this section is based on a Phase I ISA for the proposed project prepared by RBF Consulting on July 27, 2009. The objective of the Phase I ISA was to evaluate specific existing, potential, or suspect conditions that may pose an environmental hazard from soil and groundwater contamination regarding activities associated with implementation of the La Pata Avenue Gap Closure and Camino Del Rio Extension Project.

RBF conducted a limited site reconnaissance on June 3, 2009, to visually identify areas of possibly contaminated surficial soil or surface water, improperly stored hazardous materials, possible sources of PCBs, and possible risk of contamination from activities at the site and adjacent properties. In addition, available maps, photographs, reports, and regulatory agency databases and files were reviewed for the proposed project and properties located within a 1-mile radius of the project site. The review of the databases identified locations of known hazardous waste sites; landfills; LUSTs; permitted facilities that utilize USTs; and facilities that use, store, or dispose of hazardous materials.

4.9.4 Thresholds of Significance

For this project, the following thresholds of significance were used. Impacts resulting from implementation of the proposed project related to hazards or hazardous conditions in the project area may be considered to be significant if implementation of the proposed project would:

- Threshold 4.9.1:** Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- Threshold 4.9.2:** Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Threshold 4.9.3:** Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.
- Threshold 4.9.4:** Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.
- Threshold 4.9.5:** For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in a project area.
- Threshold 4.9.6:** For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.
- Threshold 4.9.7:** Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Threshold 4.9.8:** Expose people or structures to a significant risk of loss, injury, or death involving wildfires, including where wildlands are adjacent to urbanized areas or where residents are intermixed with wildlands.

4.9.5 Impacts and Mitigation

4.9.5.1 No Impacts

- Threshold 4.9.4:** **Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.**

The proposed project site is not included on any hazardous materials sites pursuant to Government Code Section 65962.5; therefore, the project will have no impact relative to hazardous materials sites pursuant to Government Code Section 65962.5.

Threshold 4.9.5: For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in a project area.

Threshold 4.9.6: For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.

As stated previously, JWA is the closest major airport and is located approximately 18 miles north-northwest from the proposed project limits. The proposed project is a roadway widening and gap closure project and will not be developing residential or commercial structures. In addition, the proposed project is not located within an airport land use plan and it is not located within the vicinity of a private airstrip. *Therefore, the project would not result in a safety hazard for people residing or working in the project area or result in a safety hazard for people residing or working in the project area.*

4.9.5.2 Less Than Significant Impacts/Less Than Significant with Mitigation Incorporated

Threshold 4.9.1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Threshold 4.9.2: Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Threshold 4.9.3: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.

Construction. Project construction will involve the routine use of hazardous materials such as fuels, paints, and solvents. However, in compliance with government regulations, the amount of these materials present during construction is limited and does not pose a significant hazard. In addition, the County of Orange is required to implement standard best management practices (BMPs) with regard to hazardous materials storage and use during construction (refer to Regulatory Requirement REG WQ-1, Section 4.11, Water Quality).

Therefore, the potential that the routine use of hazardous materials during construction of the proposed project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment are considered less than significant with implementation of mitigation.

Aerially Deposited Lead, Thermoplastic Paint, and Polychlorinated Biphenyls. Project construction includes the removal or relocation of existing pad-mounted transformers. The presence of PCB-containing pad-mounted transformers cannot be ruled out. In addition, due to the age of the roadway and presence of thermoplastic paint in the existing roadway, the potential

for hazardous levels of lead in the thermoplastic paint and in unpaved areas adjacent to the roadway cannot be ruled out. Should any of these materials or other hazardous materials be discovered prior to the disturbance of roadway striping, unpaved areas adjacent to the roadway, or leaking transformers, precautions would be necessary to ensure that the materials are properly removed so that workers and sensitive receptors are protected from hazardous contaminants. Mitigation Measures 4.9-1 through 4.9-3 require that inspections for PCBs be conducted for electrical pad-mounted transformers and surveys be completed for thermoplastic paint and ADL. *Mitigation Measures 4.9-1 through 4.9-3 will reduce potentially significant hazardous substance impacts and potential emissions associated with demolition, grading, excavation, and construction of the project to less than significant levels.*

Buried Waste at Former Landfill Location. In 1973, the Orange County Board of Supervisors adopted a multi-use concept of refuse disposal and recreational development for the Prima Deshecha Landfill. Refuse disposal operations commenced in 1976 in the area now known as Waste Management Unit (WMU) 2, a 33-acre portion of the site located east of the entrance to the Landfill. WMU 2 currently is inactive. Since 1976, 19 of the 33 acres of WMU 2 have been filled and are closed, and the remaining 14 acres have been added to the acreage for Zone 4. In 1980, disposal operations were moved to WMU 1, a 125-acre area in the western portion of the Landfill. Since WMU 1 was developed, the Prima Deshecha Landfill has been reconfigured into large refuse disposal areas known as Zones 1 and 4.¹

A small portion of the alignment of the proposed La Pata Avenue extension overlays WMU 2 at the north end of the Prima Deshecha Landfill. A deviation from Orange County standards to allow a maximum grade of 7 percent has been approved for a distance of approximately 15 feet (from Sta. 144+76.92 to Sta. 144+92.06). The 7 percent grade is required to raise the elevation of the roadway above the closed Landfill disposal area, thereby avoiding impacts to solid waste material and associated leachate.² Current grading plans were designed to avoid contact with buried waste located at WMU 2.

However, in the unlikely and unanticipated event that buried waste is encountered during excavation activities, Mitigation Measure 4.9-4 will require the contractor to stop work and the designated LEA staff member for CalRecycle be notified immediately. Compliance with local, State, and federal requirements with regard to contamination delineation, removal, and disposal of contaminated soils and groundwater is required. In addition, Mitigation Measure 4.9-4 requires the County of Orange to develop a Site and Community Health and Safety Plan prior to initiation of construction activities in order to reduce potential health and safety hazards to workers and the public in the event unknown hazards are encountered during excavation activities. In addition, Mitigation Measure 4.9-4 will require the protection of all temporary structures from methane intrusion pursuant to CCR Title 27, Section 21190(g). *Mitigation Measure 4.9-4 will reduce potentially significant hazardous substance impacts and potential emissions associated with demolition, grading, excavation, and construction of the project to less than significant levels.*

¹ CIWMB, February 18, 2004, Staff Report, Agenda Item 11.

² Stoney-Miller Consultants, Inc., 2009.

Operation. During operation, there may use of the new roadway for the transport of hazardous materials to and from off-site locations. However, transport of hazardous materials is closely regulated and adequately monitored to ensure there would be no substantial impact to the environment or to human health. In addition, local police and fire departments are trained in emergency response procedures for safely responding to accidental spills of hazardous substances on public roads, further reducing potential impacts. Also, the proposed project will not generate new trips; rather, it will accommodate existing and projected traffic. *Therefore, the potential that the proposed project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment during operation are considered less than significant.*

San Juan Hills High School, a public school under the Capistrano Unified School District, is located adjacent to the north segment of the proposed project. No additional schools are located within 0.25 mile of the proposed project site. As previously stated, the proposed project would not involve the use of potentially hazardous materials during operation. However, the new roadway may be used for the transport of hazardous materials to and from off-site locations. As stated above, the transport of hazardous materials is closely regulated and adequately monitored to ensure there would be no substantial impact to the environment or to human health. *Therefore, the proposed project would result in a less than significant impact associated with hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school, and no mitigation is required.*

Threshold 4.9.7: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Construction. The emergency management plans for the Cities of San Juan Capistrano and San Clemente, in conjunction with the emergency plan for the County of Orange, may be activated and directed by a number of individuals within the City or County, including but not limited to the City Manager, Fire Chief, and Police Chief. Roads that are used as response corridors/evacuation routes usually follow the most direct path to or from various parts of a community, although emergency response vehicles may choose to use a variety of routes to access areas surrounding the site. The project would be required to comply with all applicable codes and ordinances for emergency vehicle access, which would ensure adequate access to, from, and on site for emergency vehicles. In addition, a Transportation Management Plan (TMP) identified in Mitigation Measure 4.9-5, would be in place for the proposed project to prevent significant delays to emergency vehicles, particularly while there is construction activity on existing La Pata Avenue. *With the implementation of Mitigation Measure 4.9-5, the proposed project would not result in a significant traffic impact related to emergency access during construction. The proposed project's impact to emergency vehicle response times would be less than significant.* For additional information, refer to Section 4.2, Traffic, and Section 4.12, Public Services and Utilities, of this EIR.

Threshold 4.9.8: Expose people or structures to a significant risk of loss, injury, or death involving wildfires, including where wildlands are adjacent to urbanized areas or where residents are intermixed with wildlands.

The project is located in an area classified as a high fire zone; however, the project is limited to road improvements and would not introduce people to newly constructed residential or commercial structures located within the high fire zone area.

Much of the project construction will occur in natural areas where there is an existing potential for wildland fires. The existing risk may be slightly greater during construction with the introduction of workers and equipment to the area. OCFA will have the opportunity to review and comment on the project plans prior to the initiation of construction. The grading plans will allow for the movement of construction vehicles in the project limits. Generally, graded areas that can be traversed by construction vehicles can also be traversed by emergency vehicles. Thus, there will be emergency vehicle access, including fire truck access, to the project site during construction. *Therefore, the short-term project impact associated with wildfires during construction is less than significant.*

The project is located within a Special Fire Protection Area (SFPA), which requires that all projects occurring within this zone be subject to the Guideline for Development within Special Fire Protection Areas (SFPA)/Very High Fire Hazard Severity Zones (VHFHSZ) (the Guideline) issued by the OCFA Planning and Development Services Section on April 20, 2006. This Guideline is currently expired but is also currently undergoing an update through the OCFA Planning and Development Services office. Until an update is issued, OCFA has provided the April 2006 version of the Guideline on their website for reference. The Guideline utilizes the locally amended California Fire Code (CFC) and California Building Code (CBC), to prevent fire from occurring and to control the spread of fires to buildings, structures, and lands located within the SFPA and VHFHSZ. Since the project is located within an SFPA/VHFHSZ, all roadways modified in the project area must be in compliance with grading requirements that indicate a maximum grade of 10 percent. In addition, the minimum width of a roadway with no parking on either side should be at least 24 feet from curb face to curb face, and the minimum width with parking on one side of the roadway should be 28 feet from curb face to curb face.

As described in Chapter 3 of this EIR, the proposed project will meet the County design standard of 6 percent grade with the exception of a portion less than 0.5 mile in length where the County has approved a 7 percent design grade. Therefore, the proposed project will comply with the SFPA maximum grade requirement of 10 percent. Also, the proposed La Pata Avenue and Camino Del Rio will be four lanes wide, with minimum curb-to-curb distances varying from 35 feet (in each direction) on Avenida La Pata, where there is a raised median, to 64 feet on Camino Del Rio, where there is no raised median, and to 84 feet on La Pata Avenue, where there is no raised median. Therefore, the proposed project exceeds the requirement of a 24-foot curb-to-curb width for emergency vehicle access, and a minimum 28-foot curb-to-curb width where on-street parking is allowed on Camino Del Rio. Therefore, the proposed project will comply with the SFPA requirements regarding emergency vehicle access. The proposed project will provide safe emergency vehicle access, including fire truck access, to the project area and adjacent neighborhoods. *Therefore, with the implementation of the SFPA/VHFHSZ Guideline, and cooperation between the jurisdictions located within the project limits and the OCFA, the potential for the project to expose people or structures to significant risk of loss, injury, or death involving wildfires is considered less than significant.*

Threshold 4.9.9: **Include a new or retrofitted storm water treatment control Best Management Practice (BMP) (e.g., water quality treatment basin, constructed treatment wetlands), the operation of which could result in significant environmental effects (e.g., increased vectors and odors).**

The proposed project will include extended detention basins and bioretention planter boxes. The extended detention basins would be designed to drain within 72 hours or less. The bioretention planter boxes would contain an underdrain system where runoff would be discharged. The underdrain system would prevent the occurrence of standing water. Because the proposed BMPs would not retain standing water for an extended period of time, vectors and odors would not occur. *Therefore, vector and odor impacts related to storm water treatment control BMPs would be less than significant. No mitigation is required.*

Operation. With the completion of the proposed roadway improvements, improved circulation in south Orange County would allow for better access for emergency vehicles to the existing communities of San Juan Capistrano and San Clemente, and would provide an alternate route parallel to I-5 for emergency evacuation. *Therefore, the proposed project would not impair the implementation of or physically interfere with an adopted emergency response or evacuation plan, and impacts to emergency response or access after construction would be considered less than significant.*

4.9.5.3 Mitigation Measures

4.9-1 Polychlorinated Biphenyl Surveys for Leaking Transformers. Prior to the issuance of grading permits, the County of Orange Director of Public Works will ensure that all utility pad-mounted transformers within the project area will be inspected for leaks prior to disturbance or removal. Leaking transformers should be considered a potential for polychlorinated biphenyl (PCB) hazard, unless tested, and should be handled accordingly.

4.9-2 Thermoplastic Paint Survey. Prior to the issuance of grading permits, yellow traffic striping shall be tested by the County of Orange Director of Public Works, and handling and disposal of contaminated materials will be conducted in compliance with the recommendations of the analysis. All inspections, surveys, and analyses shall be performed by appropriately licensed and qualified individuals in accordance with applicable regulations (i.e., American Society for Testing and Materials (ASTM) E 1527-05, and 40 Code of Federal Regulations [CFR], Subchapter R, Toxic Substances Control Act [TSCA], Part 716).

4.9-3 Aerially Deposited Lead Surveys for Unpaved Areas Adjacent to Roadways. Prior to the issuance of grading permits, the County of Orange Director of Public Works shall conduct soil sampling for aerially deposited lead (ADL) contamination in unpaved locations where excavation will occur along roads in areas not previously sampled during prior investigations, and handling of the soil and disposal of surplus materials will be conducted in compliance with the recommendations of the analysis. All inspections, surveys, and analyses shall be performed by appropriately licensed

and qualified individuals in accordance with applicable regulations (i.e., ASTM E 1527-05, and 40 CFR, Subchapter R, TSCA, Part 716).

- 4.9-4 Safety Requirements for Unknown Buried Waste.** If buried waste is encountered during excavation activities, all construction work shall cease and the County of Orange Director of Public Works shall immediately notify the Local Enforcement Agency (LEA) representing CalRecycle. In addition the County of Orange and its construction subcontractors shall protect all temporary structures from methane intrusion pursuant to California Code of Regulations (CCR) Title 27, Section 21190(g). If the existing grading plan is revised during final design or if preliminary work undertaken to locate buried waste at WMU 2 indicates that contact with buried waste is likely during excavation activities, a detailed Contingency Plan containing specific steps to be implemented to manage buried solid and/or hazardous waste when encountered during excavation activities at WMU 2 shall be prepared and approved by LEA, RWQCB-San Diego Region, and SCAQMD (Rule 1150), prior to initiation of grading activities.
- 4.9-5 Transportation Management Plan.** A Transportation Management Plan (TMP) will be prepared by the County of Orange Director of Public Works. Specifics of the TMP will be established during the design phase of the project, but are expected to include a community outreach program, media bulletins, appropriate signing, adherence to dust control restrictions, avoidance of traffic restrictions during peak travel periods, and coordination of work as necessary with any other roadway projects in the vicinity. The TMP will include but not be limited to the following elements:
- **Traffic Control:** This project will require traffic control elements such as lane/shoulder closures and temporary signing/stripping on local streets.
 - **Construction Sequencing:** The TMP will address the potential for other planned improvements to be under construction in the project vicinity. Construction sequencing will be designed to avoid or minimize the simultaneous construction of improvements that could result in traffic impacts.
 - **Public Awareness Campaign (PAC):** Vehicles traveling through the construction zone, particularly on La Pata Avenue north of the Prima Deshecha Landfill, may experience longer than normal delays due to construction. To reduce these delays and confusion to the motoring public during construction activities, the County of Orange, in conjunction with the Cities of San Juan Capistrano and San Clemente and the Capistrano Unified School District, will implement a PAC. The purpose of the PAC is to keep the surrounding community abreast of the project's progress and construction activities that could affect travel plans. The use of mailers/flyers, local newspaper advertising, local radio information, and public meetings, as appropriate, may be used to disseminate this information.
 - **Signing:** Post information signing on La Pata Avenue, Calle Saluda, and the local arterials prior to and during construction to inform motorists of delays and alternate travel routes.

- **Pedestrian Access:** Provide a pedestrian detour plan to address sidewalk closures.
- **Construction Timing and Phasing:** The project construction will be staged to maintain local traffic through La Pata Avenue, Calle Saluda, and other local arterials during construction activities.

4.9.6 Cumulative Impacts

The assessment of potential cumulative impacts with regard to hazards and hazardous materials relates to the ability for impacts to occur off site. The hazardous materials study area considered for cumulative impacts consisted of: (1) the area that could be affected by proposed project activities; and (2) the areas affected by other projects where activities could directly or indirectly affect the presence or fate of hazardous materials on the proposed project site. 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 the applicable hazardous materials into the environment.

In the existing condition, building materials and soils may contain hazardous materials that would need to be removed and transported off site to an approved disposal facility. This would be a temporary condition that is subject to regulatory oversight (i.e., OCHCA). After implementation, the proposed project would involve the same amount of use of limited amounts of hazardous materials associated with existing Prima Deshecha Landfill operations. The contribution of hazardous materials use and hazardous waste disposal with implementation of the project is minimal, and combined hazardous materials effects from past, present, and reasonably foreseeable projects within the County of Orange and the Cities of San Juan Capistrano and San Clemente would not be significant. As previously stated, the proposed project would involve the use of potentially hazardous materials (e.g., solvents, cleaning agents, paints, pesticides, and diesel and petroleum fuels), but these products would be used in small amounts and any spills that do occur would be cleaned up when they occur. In addition, records obtained from OCHCA and OCFA have indicated that the Landfill has properly stored and maintained hazardous substances on site during previous inspections. Proper and routine use of these products would not result in a significant hazard to residents or workers in the vicinity of the proposed project. The proposed project would not contribute incrementally to any potential airport proximity hazards. 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 regulations related to hazards and hazardous materials. Consistency with federal, State, and local regulations prevent this and other projects from creating cumulative impacts in terms of hazards and hazardous materials.

Impacts associated with hazardous soils, groundwater, and use of hazardous materials on site would be controlled through application of standard regulatory procedures set forth in the mitigation measures listed above and in the other cited EIR sections. Similarly, the HHWCC at the Prima Deshecha Landfill is operated by OCWR in accordance with applicable regulations and under the oversight of the OCHCA. There are no other known projects adjacent to or in the vicinity of the project site that could be affected by on-site handling of hazardous materials or that could result in significant hazards or hazardous material impacts on site. For the reasons outlined above, implementation of the proposed project would not result in an incremental contribution to cumulative impacts related to hazards and hazardous materials that are considered cumulatively considerable. With implementation of Mitigation Measures 4.9-1 through 4.9-5, the proposed project's incremental

contribution to impacts related to hazards and hazardous materials would be reduced to below a level of significance.

4.9.7 Level of Significance After Mitigation

Mitigation Measures 4.9-1 through 4.9-5 would reduce potentially significant hazardous substance impacts associated with grading, excavation, construction, and operation of the proposed project to less than significant levels. All potentially significant impacts related to hazards and hazardous substances are reduced below a level of significance after implementation of mitigation.