

5. Environmental Analysis

5.7 HAZARDS AND HAZARDOUS MATERIALS

This section evaluates the potential impacts of the Agua Mansa Commerce Park Specific Plan on human health and the environment due to exposure to hazardous materials or conditions associated with the project site, project construction, and project operations. Potential project impacts and appropriate mitigation measures or standard conditions are included as necessary.

The following analysis is based in part on information obtained from:

- *Revised Remedial Investigation Report*, Langan Engineering and Environmental Services, November 3, 2017.
- *Revised Executive Summary of the Remedial Investigation Report Riverside Cement Company City of Jurupa Valley, County of Riverside, California*, Langan Project No.: 721011301, Langan Engineering and Environmental Services, November 6, 2017.
- *Site Assessment Work Plan: Agua Mansa Commerce Park Jurupa Valley, Riverside County California*, Langan Engineering and Environmental Services, revised July 10, 2018.
- *Summary of Findings Report: Agua Mansa Commerce Park Jurupa Valley, Riverside County California*, Langan Engineering and Environmental Services, August 31, 2018.
- *Work Plan: Environmental Assessment Southern California Edison Substation Aqua Mansa Commerce Park*, Langan Engineering and Environmental Services, November 26, 2018.
- *Updated Phase I Environmental Site Assessment for Rubidoux / Agua Mansa Open Space, Jurupa Valley, California*, Langan Engineering and Environmental Services, May 24, 2018.
- *Site Assessment Work Plan: Agua Mansa Recreational Park/Open Space, Jurupa Valley, California, Riverside County, California*, Langan Engineering and Environmental Services, January 7, 2019.
- *Draft Summary of Findings for Park/Open Space*, Langan Engineering and Environmental Services, April 2019.

Complete copies of these documents are included in the Technical Appendices to this Draft EIR (Volume II, Appendix G).

The Department of Toxic Substances Control (DTSC) is the lead regulatory agency for the project under the California Land Reuse and Revitalization Act (CLRRRA) program. In January 2018, DTSC and Crestmore Redevelopment Company executed nine CLRRRA agreements for the proposed investigation and remediation activities in conjunction with the proposed “brownfield” redevelopment for the commerce park area; they executed four additional CLRRRA agreements for the open space park area in August 2018.

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5.7.1 Environmental Setting

5.7.1.1 REGULATORY BACKGROUND

Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the project site are summarized below.

Federal

Comprehensive Environmental Response, Compensation and Liability Act

The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) is a law developed to protect the water, air, and soil resources from the risks created by past chemical disposal practices. This law is also referred to as the Superfund Act and regulates sites on the National Priority List, which are called Superfund sites. The Act was intended to be comprehensive in encompassing both the prevention of, and response to uncontrolled hazardous substances releases. The Act deals with environmental response, providing mechanisms for reacting to emergencies and chronic hazardous material releases. In addition to establishing procedures to prevent and remedy problems, it establishes a system for compensating appropriate individuals and assigning appropriate liability. It is designed to plan for, and respond to, failure in other regulatory programs and to remedy problems resulting from action taken before the era of comprehensive regulatory protection.

Emergency Planning and Community Right-To-Know Act

In 1986, Congress passed the Superfund Amendments and Reauthorization Act. Title III of this regulation is called the “Emergency Planning and Community Right-to-Know Act of 1986” (EPCRA). The act required the establishment of state commissions, planning districts, and local committees to facilitate the preparation and implementation of emergency plans. Under its requirements, local emergency planning committees are responsible for developing a plan for preparing for and responding to a chemical emergency.

The Riverside County Department of Environmental Health, Hazardous Materials Branch, is responsible for coordinating hazardous material and disaster preparedness planning and appropriate response efforts with city departments and local and state agencies.

Another purpose of the EPCRA is to inform communities and citizens of chemical hazards in their areas. Sections 311 and 312 of EPCRA requires businesses to report to state and local agencies the location and quantities of chemicals stored on-site. Under section 313 of EPCRA, manufacturers are required to report chemical releases for more than 600 designated chemicals. In addition to chemical releases, regulated facilities are also required to report off-site transfers of waste for treatment or disposal at separate facilities, pollution prevention measures, and chemical recycling activities. The US Environmental Protection Agency (EPA) maintains the Toxic Release Inventory database that documents the information that regulated facilities are required to report annually.

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Resource Conservation and Recovery Act

The Act was intended to be comprehensive in encompassing both the prevention of, and response to uncontrolled hazardous substances releases. The Act deals with environmental response, providing mechanisms for reacting to emergencies and chronic hazardous material releases. In addition to establishing procedures to prevent and remedy problems, it establishes a system for compensating appropriate individuals and assigning appropriate liability. It is designed to plan for, and respond to, failure in other regulatory programs and to remedy problems resulting from action taken before the era of comprehensive regulatory protection.

Hazardous Materials Transportation Regulations

The Hazardous Materials Transportation Act and Hazardous Materials Transportation Uniform Safety Act provide regulatory and enforcement authority to the Secretary of Transportation to reduce risks to life and property from hazards associated with the transport of hazardous materials.

Title 29, Code of Federal Regulations, Section 1926.62

Title 29, CFR Section 1926.62, sets standards for occupational health and environmental controls for lead exposure in construction, regardless of the lead content of paints and other materials.

State

Hazardous Materials Release Notification

Many state statutes require emergency notification of a hazardous chemical release:

- California Health and Safety Codes Sections 25270.8, and 25507
- Vehicle Code Section 23112.5
- Public Utilities Code Section 7673, (PUC General Orders #22-B, 161)
- Government Code Sections 51018, 8670.25.5 (a)
- Water Codes Sections 13271, 13272
- California Labor Code Section 6409.1 (b)10

Requirements for immediate notification of all significant spills or threatened releases cover owners, operators, persons in charge, and employers. In addition, all releases that result in injuries or harmful exposure to workers must be immediately reported to the California Occupational Safety and Health Administration pursuant to the California Labor Code Section 6409.1(b).

Hazardous Materials Disclosure Programs

The Unified Program administered by the State of California consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities for environmental and emergency management programs, which include: Hazardous Materials Release Response Plans and Inventories (business plans), the California Accidental Release Prevention (CalARP) Program, and the Underground

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Storage Tank (UST) Program. The Unified Program is implemented at the local government level by Certified Unified Program Agencies (CUPAs).

The CUPA for Jurupa Valley is the Riverside County Department of Environmental Health (RCDEH) Hazardous Materials Branch.

Hazardous Materials Business Plans

Both the federal government (Code of Federal Regulations) and the State of California (California Health and Safety Code) require all businesses that handle more than a specified amount—or “reporting quantity”—of hazardous or extremely hazardous materials to submit a hazardous materials business plan to its CUPA.

The RCDEH Hazardous Materials Branch currently reviews submitted business plans and updates. Businesses that handle hazardous materials are required by law to provide an immediate verbal report of any release or threatened release of hazardous materials if there is a reasonable belief that the release or threatened release poses a significant present or potential hazard to human health and safety, property, or the environment. The RCDEH Hazardous Materials Branch is also charged with the responsibility of conducting compliance inspections of regulated facilities in Riverside County.

California Accidental Release Prevention Program

CalARP aims to be proactive and therefore requires businesses to prepare risk management plans, which are detailed engineering analyses of the potential accident factors present at a business and the mitigation measures that can be implemented to reduce this accident potential.

Leaking Underground Storage Tanks

Leaking USTs have been recognized since the early 1980s as the primary cause of groundwater contamination from gasoline compounds and solvents. The State Water Resources Control Board has been designated the lead California regulatory agency in the development of UST regulations and policy. The California Regional Water Quality Control Boards, in cooperation with the Office of Emergency Services, maintain an inventory of leaking USTs in a statewide database.

California Code of Regulations

Title 22, Division 4.5, of the California Code of Regulations (CCR) sets forth the requirements for hazardous-waste generators; transporters; and owners or operators of treatment, storage, or disposal facilities. These regulations include the requirements for packaging, storage, labeling, reporting, and general management of hazardous waste prior to shipment. In addition, the regulations identify standards applicable to transporters of hazardous waste.

Title 23, Chapter 16, sets forth the requirements for new underground storage tank design, construction, and monitoring requirements.

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Asbestos-Containing Materials Regulations

State-level agencies, in conjunction with the EPA and OSHA, regulate removal, abatement, and transport procedures for asbestos-containing material (ACM). Releases of asbestos from industrial, demolition, or construction activities are prohibited by these regulations and medical evaluation and monitoring is required for employees performing activities that could expose them to asbestos. Additionally, the regulations include warnings that must be heeded and practices that must be followed to reduce the risk for asbestos emissions and exposure. Finally, federal, state, and local agencies must be notified prior to the onset of demolition or construction activities with the potential to release asbestos.

California Fire Code

The 2013 California Fire Code (CCR Title 24 Part 9) sets requirements pertaining to fire safety and life safety, including for building materials and methods, fire protection systems in buildings, emergency access to buildings, and handling and storage of hazardous materials. Updated every 3 years, the California Fire Code includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, fire hydrant locations and distribution, and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildlife hazard areas.

California Department of Forestry and Fire Protection (CAL FIRE) is dedicated to the fire protection and stewardship of over 31 million acres of California's wildlands. The Office of the State Fire Marshal supports CAL FIRE's mission to protect life and property through fire prevention engineering programs, law and code enforcement, and education. Office of the State Fire Marshal provides for fire prevention by enforcing fire-related laws in state-owned or operated buildings; investigating arson fires in California; licensing those who inspect and service fire protection systems; approving fireworks for use in California; regulating the use of chemical flame retardants; evaluating building materials against fire safety standards; regulating hazardous liquid pipelines; and tracking incident statistics for local and state government emergency response agencies. The California Fire Plan is the state's road map for reducing the risk of wildfire through planning and prevention to reduce firefighting costs and property losses, increase firefighter safety, and contribute to ecosystem health. The California Fire Plan is a cooperative effort between the State Board of Forestry and Fire Protection and CAL FIRE.

California Health and Safety Code, Sections 17920.10 and 105255

Lead must be contained during demolition activities.

Brownfield Voluntary Cleanup Program

Established in 1993, the Voluntary Cleanup Program (VCP) allows DTSC and RWQCB to provide oversight to motivated parties to address brownfield sites. For the proposed project, DTSC was selected to be the lead agency for the VCP. The lead agency is responsible for overseeing and directing all site investigation and cleanup activities in a manner that ensures that the standards and requirements of both agencies are fully addressed. To accomplish the goal of providing ample opportunities for public input and involvement in brownfield cleanups,

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the lead agency is required to ensure that their site investigation and cleanup activities, agreements, policies, and protocols provide the public and other state or local governmental entities with opportunities to participate in decisions

Regional

South Coast Air Quality Management District

SCAQMD Rule 1403 governs the demolition of buildings containing asbestos materials. Rule 1403 specifies work practices with the goal of minimizing asbestos emissions during building demolition and renovation activities, including the removal and associated disturbance of ACM.

Local

Riverside County Fire Service Fire Prevention Guidelines

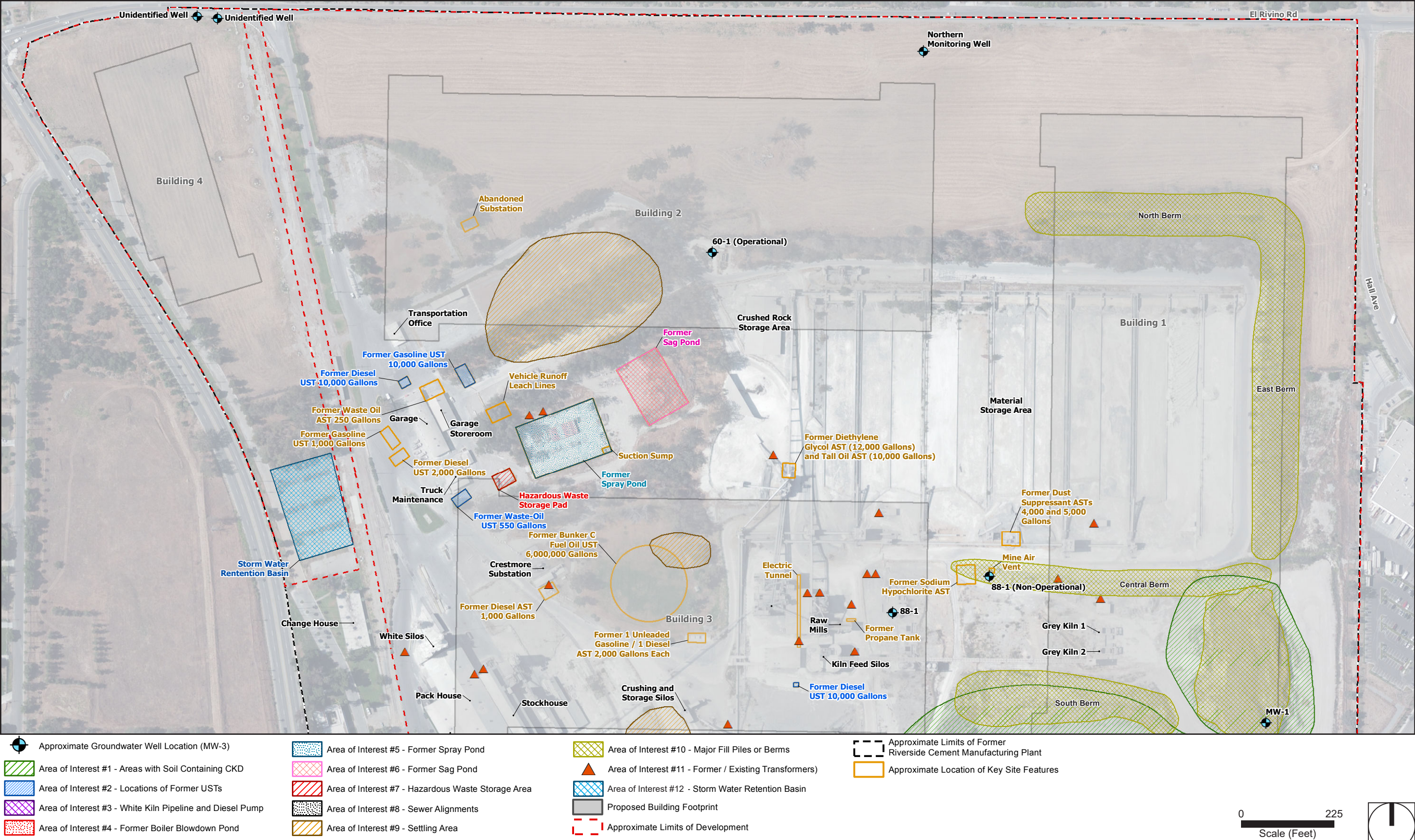
The Riverside County Fire Service has set fire prevention guidelines that address such matters as fire flow, fire access, building construction, flammable and combustible liquids, and fire protection systems.

5.7.1.2 HISTORICAL LAND USE

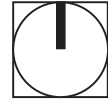
The Riverside Cement Plant (RCP) property has been historically used for mining, quarrying, and/or cement manufacturing since the early 1900s. The RCP terminated manufacturing operations in 2014, and as of early 2017, the cement manufacturing facilities are in the process of decommissioning.

The main components of the site include the cement plant, supporting infrastructure, various silos and kilns, storage areas, and office/maintenance buildings. The site includes four quarries designated as the Wet Weather, the Crestmore, the Commercial, and the Lone Star quarries. An underground mine, the Crestmore Mine, also operated on the site; mining was ceased and the Crestmore Mine was flooded in the mid-1980s, resulting in Crestmore lake located in the Open Space District (see Figures 5.7-1a and 5.7-1b).

Figure 5.7-1a - Key Site Features and Areas of Interest
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Source: Langan, 2017

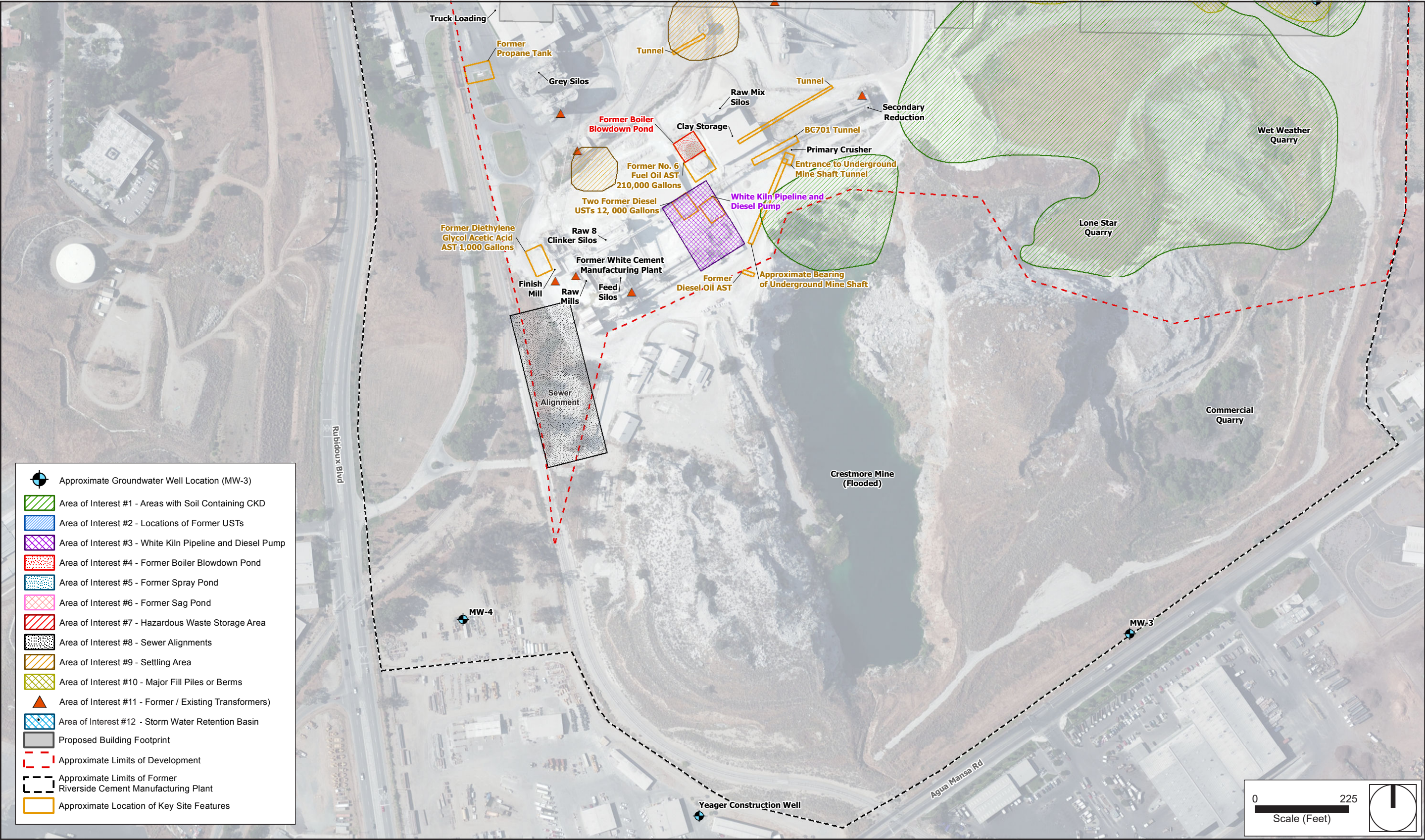


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Figure 5.7-1b - Key Site Features and Areas of Interest
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Source: Langan, 2017

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The facility reportedly underwent three major redevelopment phases over the life of its operation. From the early 1900s to the 1950s, the cement plant was located in the south western portion of the site, just north of the present-day white cement plant. The facility at that time was operated using petroleum-based fuels (i.e. Bunker C) stored in fuel tanks. As the cement manufacturing process evolved through the use of updated technology and other changes in the industry, the facility went through an expansion and redevelopment phase from the late 1950s through early 1960s, which included conveyor belt systems and compressed air, development of raw material storage areas, and upgrades to processing of raw materials to manufacture cement product. During the second renovation phase, the facility was operated using both coal and petroleum-based fuels. By the 1960s, the original plant had been demolished and the present-day facility was constructed that generated both grey and white cement product. The current facility was operated until it was shut down in 2014 (Langan 2018 SOF).

Cement kiln dust (CKD) was one of the primary by-products generated during the manufacturing process, and consisted of material accumulated within the kilns that could not be reused in the process stream. Prior to the 1970s, CKD was hauled from the kilns and placed with fill soils/mine spoils at several locations throughout the site (See Figures 5.7-1a and 5.7-1b). In the 1970s and up until the late 1980s, the CKD was recovered for a mill and kiln feed supplement as part of the cement manufacturing process. Soil piles containing CKD still exist on site. Soil containing CKD can be a concern because of CKD's potential to increase metal content, which could contaminate soils and groundwater.

The equipment used to manufacture cement generally relied on electrical power for material conveyance/process control, and petroleum fuels for heating. Petroleum fuels were historically provided by a 6,000,000-gallon UST. Other USTs at the site were used to store petroleum products such as gasoline, diesel fuel, fuel oil, and waste oil. All USTs have been removed and closed out by Riverside County. USTs are of concern because they may leak total petroleum hydrocarbons (THPs) and volatile organic compounds (VOCs) into soils and groundwater. Testing has confirmed no groundwater contaminants as a result of USTs.

As a result of historical operations, on-site soils are impacted by arsenic, lead, nickel, and limited TPH-d. Groundwater has not been found to be impacted, because sampling results are not above current total chromium Maximum Concentration Levels (MCLs).

5.7.1.3 SITE GEOLOGY AND HYDROGEOLOGY

Soil and groundwater conditions under the site are described in Section 5.5, *Geology and Soils*, and Section 5.8, *Hydrology and Water Quality*. Following is a summary of conditions for context of the hazards discussion.

The site is located within the fault-bounded, northwest-southeast trending Perris Block in the Peninsular Ranges geomorphic province of California. The Perris Block is bounded in the east by the San Jacinto Fault Zone, the north by Cucamonga Fault Zone, and the west by Elsinore Fault Zone. The site is in an area dominated by granitic rocks that are mainly quartz diorite. Specific areas of the site were used for mining activities due to the presence of two steeply dipping limestone formations approximately 200 to 300 feet thick in the northern end. The limestone formations are roughly parallel, with an upper and lower formation. Thin, poorly developed soils and minor sedimentary strata locally cover the bedrock on the site.

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The site is underlain by two geologic units consisting of artificial fill, alluvium, aeolian sands and intermixed tonalite marble and schist. The artificial fill reportedly consists of uncompacted and undocumented fill from mining operations, CKD and unconsolidated talus deposits.

The site is in the eastern end of the Jurupa Mountains on the south side of the San Bernardino Valley. The Santa Ana River drains the San Bernardino Valley toward the southwest and is approximately one-half mile east of the site. The ground surface elevations vary between approximately 820 feet above mean sea level (amsl) on the southern portion of the site to approximately 1150 feet amsl on the northern portion of the site. Groundwater is encountered in the wells on-site at depths between 85 to 90 feet on the southern portion of the site (Langan 2018 Phase I).

Groundwater reportedly occurs in three distinct hydrologic units at the site. They are the Chino limestone (referred to the lower limestone unit), the Wet Weather and the Sky Blue Limestone units (referred to upper limestone unit), and the Santa Ana River alluvium. Dewatering studies were conducted in the Chino limestone, where the Crestmore quarry is currently located. These studies indicated that the granite layers above and below the Chino limestone act as confined layers. The Chino limestone water originates mostly from percolation from rainwater at the mine and an influx of water from somewhere below the Santa Ana River to the east (Langan 2018 Phase I).

5.7.1.4 REVIEW OF REGULATORY LISTINGS

The site was identified in several local, state, and federal agency databases:

- The site is listed on the federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) site.
- The Superfund Enterprise Management System (SEMS) database lists the site as a “state-lead cleanup” that is not included in the National Priority List (NPL).
- The ENVIROSTOR database indicates that the Regional Water Quality Board (RWQCB) and the EPA are agencies that have been involved with the site. Potential chemicals of concern are listed as Polychlorinated Biphenyl (PCB) and hexavalent chromium. The site is listed as an active site in the voluntary cleanup program with the DTSC.
- The Leaking Underground Storage Tank (LUST) database indicates the site status as “completed - case closed as of November 5, 1991”. The lead agency was RCDEH, who administers the Riverside County Local Oversight Program. Heating oil/fuel oil was identified as a potential chemical of concern.
- According to the aboveground storage tank (AST) database, the total AST storage capacity at the site is 5,000 gallons. The Certified Unified Program Agency (CUPA) for the site is RCDEH.
- The site is listed on the local lists of landfill/solid waste disposal sites (WMUDS/SWAT).
- The site is listed on the local lists of registered storage tanks.

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- LDS: The site is listed as a land disposal site with the Santa Ana Regional Water Quality Control Board. The site is listed as case closed as of November 2009.
- The site is listed on the Toxic Substances Control Act (TSCA) site.
- ICIS: The site is listed as having an administrative order and notice of violation.
- US AIRS: The site is listed on the Aerometric Information Retrieval System list, an EPA list for air pollution point sources.
- Abandoned Mines: The site is listed on the Department of Interiors list of sites impacted by past mining operations.
- FINDS: The site is listed for airborne pollution from industrial plants.
- ECHO: The site is listed on the Enforcement and Compliance History Information list maintained by the EPA for compliance and enforcement information on regulated facilities.
- EMI: The site is listed with South Coast Air Quality Management District for emissions from 1987 to 2015.
- HAZNET: The site is listed for the transport and disposal of polychlorinated biphenyls (PCBs), organic solids, waste oil, and oxygenated solvents.
- Historical CORTESE: The site is listed by the DTSC on the Hazardous Waste and Substances Site List, a database that is no longer updated by the state.
- NPDES: The site is listed by the State Water Resources Control Board for having a NPDES permit.
- WDS: The site is listed by the State Water Resources Control Board as a Waste Discharge System.

Several adjacent and surrounding properties were also identified in the regulatory databases. Based on distance, topographically cross-gradient or down-gradient relative to the site, and the non-violation status, none of the adjacent and surrounding properties are listed to have current or former releases of hazardous substances that are likely to impact the site at levels requiring regulatory cleanup action.

5.7.1.5 PREVIOUS INVESTIGATIONS AND REMEDIATION ACTIVITIES

As a result of the historical operations, the DTSC, the Santa Ana RWQCB, and the RCDEH have investigated the site at various times. A timeline of these investigations and the remedial actions taken is presented in Table 5.7-1.

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Table 5.7-1 Environmental History of Project Site

Year	Event
1973	Hexavalent chromium detected at 0.55 milligrams per liter (mg/L) in discharges from the RCP of untreated industrial waste water to the North Riverside Canal, Jurupa Canal, and a gravel percolation pit. A pump failure caused treated cooling water to be inadvertently discharged into the stormwater effluent. A standby pump installed in case the circulating pump fails, and water additives for cooling water changed to reduce or eliminate the use of chromium.
1976	New water quality standards adopted by the Santa Ana Region established additional monitoring and reporting requirements for two additional discharge streams; a sanitary wastewater stream and a brine wastewater stream (from the Boiler Blowdown Pond).
1978	New regulations prohibited the discharge of sanitary wastes to the septic system and required connection to the Rubidoux Community Services District. The Boiler Blowdown Pond was subject to the new discharge requirements. RCP initiated a removal action and remediation of the Boiler Blowdown Pond.
1987	RCP decommissions the 6,000,000-gallon fuel oil UST. Approximately 70,500 tons of soil excavated with lower TPH concentration soil blended with clay and consumed in the grey cement kiln during the normal course of manufacturing operations. Soil with higher TPH concentrations was insufflated at the Grey Kilns with the remaining 44,000 tons stockpiled in two locations on site. Analysis of samples collected from the stockpiles concluded that the soils did not exhibit any characteristics that would lead the soil to be classified as hazardous under Title 22 of the California Administrative Code. RCDEH notified RCP that the last confirmation sampling results for the 6,000,000-gallon fuel UST showed no appreciable impacts and that No Further Action (NFA) was required. RCP removes a 550-gallon waste oil UST and one 10,000-gallon diesel UST (located near the kiln feed silos at the grey Cement plant). Confirmation samples for TPH and lead confirm no impact and the excavations were backfilled with the excavated soil and imported soil. 10,000-gallon diesel UST, located north of the garage, also removed. Confirmation samples for TPH show the need to excavate to 36 feet below ground surface (bgs). Approximately 150 cubic yards of impacted soil added to the stockpile containing soils from the removal of the 6,000,000-gallon UST and approximately 250 cubic yards of imported soil used to backfill the excavation.
1989	RCP receives approval from RCDEH to use the stockpiles from the closure of the 6,000,000-gallon fuel oil UST and the 10,000-gallon diesel UST as in road mix for paving.
1990	Site Inspection conducted at the request of the USEPA to investigate the impact of metals to groundwater from the areas containing CKD placed with mine spoils/fill soils.
1991	Closure Plan and a Closure Report for the Boiler Blowdown Pond prepared. Soils impacted by Total Petroleum Hydrocarbons (TPH), or exhibiting elevated conductivity relative to background, excavated and stockpiled on-site. The excavation was backfilled with clay along with 45-mil-thick liner. The clay liner system was also designed to serve as a secondary containment for the AST. RCP submits a closure plan for three CKD disposal areas to the RWQCB. The proposed activities included covering each of the three CKD disposal areas with at least 12 inches of native overburden material and maintaining the cover until vegetation begins to establish. No additional capping was proposed to control infiltration because the hydraulic properties of CKD are similar to those of typical capping materials such as clay.

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Table 5.7-1 Environmental History of Project Site

Year	Event
1993	Pipeline leak discovered from an underground pipeline connecting the 210,000-gallon fuel oil AST to supply pumps for the White Kiln. Approximately 750 gallons discharged and 700 gallons removed. Soil samples analyzed for Total Recoverable Petroleum Hydrocarbons (TRPH) with soil found to be impacted excavated and temporarily stockpiled on-site and reused as part of the cement manufacturing process. Site conditions satisfied HMMD/RWQCB criteria for site closure.
1994	USEPA conclusion to the 1990 site inspection of CKD containing soils: <ul style="list-style-type: none"> Chromium and aluminum concentrations were measured at higher concentrations in the soil background sample than in the CKD sample. CKD is a material which forms a cement-like mass when it comes in contact with water and creates a barrier to further water penetration or leaching of metals. The concentrations of metals in groundwater did not confirm that the impacts were a direct result of leaching from the soil/CKD areas.
1995	RWQCB notified RCP that the closure report for the former boiler blowdown disposal pond was approved and that the closure of the former pond was complete.
1996	Samples collected from wells MW-1 and MW-3 were analyzed for metals, total dissolved solids, turbidity, alkalinity, chloride, color, fluoride, nitrate (NO ₃), odor, pH, specific conductance, and sulfates. Groundwater sample results were compared for three measured sampling events (June 11, 1991, April 6, 1994 and October 18, 1995) to the EPA and State of California drinking water maximum contaminant levels, and were measured below these levels. RCDEH stated no further action was required with respect to the pipeline leak in 1993.
1997	RCP decommissions the 12,000-gallon diesel UST at the White Cement plant and one 10,000-gallon gasoline UST. After receiving the closure report, RCDEH confirmed that no further action was required.
1998	Discharges from the RCP were determined by RWQB to be an insignificant threat to water quality.
1999	RCP decommissions a 1,000-gallon diesel UST and a 2,000-gallon gasoline UST located west of the garage. The excavations were backfilled with excavated soil and imported soil and capped with asphalt.
2006	DTSC conducted a preliminary assessment per CERCLA and concluded the site was CERCLA eligible; however, no action was recommended by the agency.
2009	DTSC conducted a preliminary assessment per CERCLA and concluded the site was CERCLA eligible; however, no action was recommended by the agency.

Note: Wells MW-1 and MW-3 as well as all USTs are shown in Figures 5.7-1a and 5.7-1b.

5.7.1.6 CURRENT ASSESSMENT AND REMEDIATION ACTIVITIES

Due to the diverse historic and proposed uses, the site investigation and remediation efforts have been divided into two separate areas that generally coincide with the proposed land uses in the Specific Plan (i.e., Business Park/Industrial Park, and Open Space District), as shown in Figure 3-4 *Proposed Land Use Plan*.

The first area encompasses the proposed Business Park/Industrial Park areas proposed for redevelopment in the Specific Plan, which include APNs 175-170- 005, a portion of 006, 027, 028, 030, 036, 040, 042, 045, and 046; 175-180-001; and 175-200-001 through 005, and 007 through 009. The second area includes the potential Open Space District that includes four lots (Lots A, B, C, and D) in the southern portion of the proposed Business Park. This second area includes APNs 175-170-043 and portions of 175-180-001 and 175-170-046.

Table 5.7-2, *Assessment and Remediation Activity*, summarizes the recent activities for the Business Park/Industrial Park area of the project site with regulatory agencies.

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Table 5.7-2 Assessment and Remediation Activity, Business Park/Industrial Park Area

Year	Activity
2017	Project enrolled in the Voluntary Cleanup Program with DTSC.
2017	Preliminary Endangerment Assessment (PEA) was submitted to DTSC with 12 identified Areas of Interest (AOIs). These AOIs were investigated by trenching, sampling, and laboratory analyses conducted between April 2016 and February 2017.
2018	A scoping and strategy meeting was held among representatives of the proponent, Langan, and DTSC on January 12, 2018. A site tour was conducted by the DTSC on January 25, 2018.
2018	The project applicant entered into nine separate DTSC California Land Reuse and Revitalization Agreements (CLRRRA) Agreements for each of the Redevelopment Site parcels on January 16, 2018.
2018	DTSC staff provided detailed comments on the PEA and direction regarding preparation of a Site Assessment Work Plan (SAWP) during a February 23, 2018, scoping meeting. The SAWP was submitted to DTSC on June 1, 2018, with a revised plan submitted July 3, 2018, and conditionally approved by DTSC on July 19, 2018. DTSC implemented site visits from July 11 through July 18, 2018. The conditional approval of the SAWP was based on the request for additional sampling as outlined in the July 19, 2018 DTSC letter. The additional field activities were conducted in June and July 2018. DTSC visited the site on July 28, 2018 to oversee soil gas sampling and analysis. The information collected from this assessment was incorporated into a Summary of Findings report dated August 31, 2018. On September 27, 2018 DTSC and project proponent representatives met to discuss the preliminary comments on the Summary of Findings report and a path forward. The information from the Summary of Findings (SOF) report was used to prepare the Response Plan. The Response Plan was submitted to the DTSC on December 21, 2018.
2019	DTSC reviewed the SOF report and requested that two additional soil borings be advanced in the Wet Weather Quarry and Lone Star Quarry using the sonic drilling method. The locations of the two soil borings were selected by a DTSC representative. The two sonic borings were drilled in February 2019 with oversight by a DTSC geologist.

Areas of Interest

The Preliminary Endangerment Assessment (PEA) Report identified areas of interest (AOIs) for the Business Park/Industrial Park based on features identified on site during the preliminary assessments (these features and the AOIs are shown in Figures 5.7-1a and 5.7-1b). The areas evaluated for further investigation are:

- **Areas with Soil Containing CKD (AOI #1):** Up to approximately 250,000 tons of CKD were reportedly generated and placed with soil/mine spoils in three distinct areas at the site. The composition of CKD depends upon the raw materials used as feedstock.
- **USTs (AOI #2):** All USTs have been decommissioned.
- **White Kiln Pipeline and Diesel Pump (AOI #3):** Due to the 1993 fuel oil leak (see Table 5.7-1).
- **Former Boiler Blowdown Pond (AOI #4):** Soil samples collected within the pond indicated elevated levels of total chromium. Excavation occurred and the area was recommended for additional assessment due to post-closure usage as a secondary containment area for the 210,000-gallon fuel oil AST.
- **Former Spray Pond (AOI #5):** The spray pond was a large concrete basin designed to reduce the temperature of cooling water. Additional characterization to evaluate the potential for impacts from the use of the area for storage of equipment was identified.

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- **Former Sag Pond (AOI #6):** Based on a review of historical aerial photographs, a depression was present containing water periodically where historical maps have identified the former Sag Pond location.
- **Hazardous Waste Storage Area (AOI #7):** A fenced Hazardous Waste Storage Area (HWSA) was identified that included a concrete pad where waste oil, waste grease, waste solvents, and empty drums were stored. A sump was identified at the southwest corner of the HWSA.
- **Sewer Alignments (AOI #8):** Two sewer lines, serving the mining and manufacturing areas of the facility were identified.
- **Settling Areas (AOI #9):** A map obtained from the RWQCB identified four areas at the site where pooling of surface water could occur.
- **Major Fill Piles or Berms (AOI #10):** Four large berms and one fill pile of previously unknown composition are on the eastern portion of the property. The North Berm has an estimated volume of 40,500 cubic yards. The East Berm has an estimated volume of 48,500 cubic yards. The South Berm has an estimated volume of 41,500 cubic yards. The Central Berm has an estimated volume of 20,000 cubic yards. The fill pile has an estimated volume of 63,000 cubic yards.
- **Former/Existing Transformers (AOI #11):** Twenty-five former or existing transformers were identified at the site.
- **Stormwater Retention Basin (AOI #12):** The western side of the retention basin has two wide concrete swales which accept water that flows across the access road from a stormwater culvert serving Rubidoux Boulevard. The culvert receives stormwater runoff from the western side of Rubidoux Boulevard. Another concrete swale was identified on the southeastern corner of the basin, serving as a spillway for excess water.

Soil Sampling

A field investigation was conducted in September 2016 to further evaluate whether environmental conditions at the AOIs were likely to present human health or environmental concerns during redevelopment activities.

The locations selected for evaluation during the field investigation follow the AOIs outlined above.

- **AOI #1, CKD Containing Soil.** Samples collected from AOI #1 were analyzed for metals, as metals were the primary focus of previous regulatory investigations associated with the environmental effects of CKD at the site. One soil sample was also analyzed for TPH and Polychlorinated Biphenyls (PCBs).
- **AOI #2, Former USTs.** Four trenches were excavated in the vicinity of the former USTs. Although there was no evidence of residual impacts at these locations based on field screening, limited sampling was conducted for the purpose of confirming field observations and ruling out these areas as potential concerns. Soil samples collected from the trenches were analyzed for TPH and VOCs.
- **AOI #3, White Kiln Pipeline Release.** Two trenches were excavated in the vicinity of the White Kiln Pipeline Release to evaluate the current concentrations of diesel in soil and extent of the residual impacts,

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if any. No evidence of residual TPH was observed at the trenches based on visual, olfactory, and photoionization detector (PID) screening, and no samples were collected for laboratory analysis.

- **AOI #4, Former Boiler Blowdown Pond.** One trench was attempted at the Former Boiler Blowdown Pond to evaluate current concentrations of metals in soil. One soil sample was analyzed for metals.
- **AOI #5, Former Spray Pond.** Additional characterization of TPH, metals, and VOCs was warranted in the vicinity of the former Spray Pond due to the potential for accumulation of runoff at the suction sump. One trench was excavated at the suction sump at the southeast corner of the Former Spray Pond. One soil sample was analyzed for TPH, metals, and PCBs.
- **AOI #6, Former Sag Pond.** Additional characterization was warranted in the vicinity of the former Sag Pond due to a lack of available historical information regarding the use of the pond. One trench was excavated at the southeast corner of the Former Sag Pond. Two soil samples were analyzed for TPH, metals, PCBs, semivolatile organic compounds (SVOCs), and VOCs.
- **AOI #7, Hazardous Waste Storage Area.** Additional characterization was warranted in the vicinity of the hazardous waste storage area due to chemicals and waste stored at this location. One trench was excavated near the sump at the southwest corner of the Hazardous Waste Storage Area. No evidence of residual impact was found at this location based on visual/olfactory observations and PID screening, but limited sampling was conducted to evaluate constituents that are not readily identifiable using standard field screening procedures. One soil sample was analyzed for metals and PCBs.
- **AOI #8, Sewer Alignments.** Two trenches were excavated at locations where lateral lines serving the mining and manufacturing areas of the plant tie into the main sewer line. No evidence of residual impact was found at this location based on visual/olfactory observations and PID screening, but limited sampling was conducted to confirm field observations. Three soil samples were analyzed for TPH, metals, PCBs, SVOCs, and/or VOCs.
- **AOI #9, Settling Areas.** Four trenches were excavated at locations identified as surface water settling areas. As stated above, metals have been the primary focus of previous regulatory investigations associated with the environmental effects of CKD at the site. In general, settling areas represented appreciable contaminant input locations. No evidence of excessive sedimentation was found at these areas, however sampling was conducted to confirm field observations. Four soil samples were analyzed for metals.
- **AOI #10, Major Fill Piles or Berms.** A total of 11 composite and three grab samples were analyzed for metals.
- **AOI #11, Former and Existing Transformers.** Twelve trenches were excavated in the vicinity of nine former or existing transformers. A total of 11 soil samples were analyzed for PCBs.
- **AOI #12, Stormwater Retention basin.** Additional investigation was warranted at the stormwater retention basin due to the potential infiltration of stormwater runoff that may have been impacted by off-

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site sources. Four trenches were excavated at locations where influent runoff material and sediments were observed. Six soil samples were analyzed for metals, hexavalent chromium, and TPH.

5.7.2 Notice of Preparation (NOP)/Scoping Comments

A Notice of Preparation (NOP) for the proposed project was circulated for public review on July 17, 2017. The comments from the NOP review that will be addressed in the hazards and hazardous materials section are included in Table 5.7-3.

Table 5.7-3 NOP Written Comments Summary

Commenting Agency/Person	Letter Dated	Summary of Comments	Issue Addressed In:
<p>Santa Ana Regional Water Quality Control Board (RWQCB)</p> <p>Terri S. Reeder, Chief, Basin Planning Coastal Waters Section</p>	8/18/17	<ul style="list-style-type: none"> States that fine cement kiln dust (CKD) created as a by-product of cement production is located on-site in three disposal sites within the project area: 1) northern end of the Crestmore Quarry in the southern portion of the site; 2) beside the Commercial Quarry in the southeastern portion of the site, and 3) in a large area north and northwest of the Wet Weather Quarry in the east-central portion of the site. <ul style="list-style-type: none"> CKD disposal areas were covered with a cap of clay and rock by the 1990s as a closure measure, but it appears one large CKD pile remains exposed beside the Wet Weather Quarry and may still pose a threat to air and water quality The Remedial Action Plan (RAP) prepared for the DEIR should address the on-site CKD disposal areas and fugitive dust generated by project construction States that any movement of the caps overlying the CKD disposal areas require a rigorous safety and logistics plan for CKD dust containment Requests that all CEQA Appendix G Checklist question be answered in the DEIR given that an Initial Study was not prepared Recommends the DEIR discuss how the site's geologic and mining history has led to the construction of quarries and associated infrastructure, as well as the need for careful remediation Requests that available closure documents should be summarized in the DEIR The large limestone in the southern portion of the site is a local landmark, identified as "Sky Blue Hill" States that the water-filled quarry or "Crestmore Lake" was saturated at depth with groundwater recharged by the Santa Ana River, and pollutants entering it could be carried underground and impact downgradient 	<ul style="list-style-type: none"> Section 5.7, <i>Hazards and Hazardous Materials</i> Section 5.8, <i>Hydrology and Water Quality</i> Appendix G, <i>Hazardous Materials Reports</i> Appendix H, <i>Hydrology & Water Quality Report</i>

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Table 5.7-3 NOP Written Comments Summary

Commenting Agency/Person	Letter Dated	Summary of Comments	Issue Addressed In:
		<p>resources. Surface runoff on-site into Crestmore Lake can also impact groundwater quality.</p> <ul style="list-style-type: none"> • The hydrology report must address creation of a Water Quality Management Plan to protect the Crestmore Lake from adverse water quality impacts, by using structural and procedural best management practices • Provides a list of items that the project's hydrology report should include • Requests a discussion in the DEIR about whether the brownfield designation was established by the California Department of Toxic Substances Control or another agency, along with the expected level of remediation and waste management from that agency • Provides a summary of regulatory closure actions that occurred from 1978 to 1998 under Regional Board Order No. 78-27. • States that it appears the project may build over capped disposal sites and that the Riverside County Department of Environmental Health should be consulted regarding any dismantling activities. • Recommends the DEIR incorporate and respond to the Crestmore Quarry Mining and Reclamation Plan dated February 7, 1991, which was Riverside Cement Company's proposal for an industrial park and preserved wildlife refuge in Crestmore Lake and ephemeral wetlands within the Commercial Quarry. The DEIR should discuss requirements of the California Surface Mining and Reclamation Act and how the 1991 plan may need to be revised. Any revised reclamation plan should be included in the DEIR as an appendix. • States that the dedication of Crestmore Lake for wildlife use would support the beneficial uses listed in the Basin Plan. Trails would be considered, but any muscle-powered watercraft or swimming would be unsafe • It is possible that Crestmore Lake may be identified as having a federal nexus (i.e., regulated by the US Army Corps of Engineers). If so, and the project would impact these waters, a Clean Water Act Section 404 permit would be required. A wildlife refuge would not appear to require construction disturbance in the lake. • RWQCB may also determine that waste discharge requirements and associated mitigation are necessary for protection of isolated wetlands as waters of the State. A LSA from the CDFW may also be required. 	

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Table 5.7-3 NOP Written Comments Summary

Commenting Agency/Person	Letter Dated	Summary of Comments	Issue Addressed In:
		<ul style="list-style-type: none"> The project is required to obtain a Riverside County MS4 permit per Regional Board Order No. RB-2010-0033, NPDES Permit No. CAS 618033 The project must obtain a Construction General Permit per SWRCB Order No. 2009-0009-DWQ and implement a Storm Water Pollution Prevention Plan. 	

In addition, a scoping meeting was held on July 27, 2017, at the Jurupa Valley City Hall, 8930 Limonite Avenue, Jurupa Valley, CA 92509, to elicit comments on the scope of the DEIR. A list of attendees is provided in Appendix A; no verbal or written comments were received during the scoping meeting.

5.7.3 Thresholds of Significance

The City of Jurupa Valley has not established local CEQA significance thresholds as described in Section 15064.7 of the State CEQA Guidelines. Criteria for determining the significance of impacts related to hazards and hazardous materials are based on criteria in Appendix G of the CEQA Guidelines. According to Appendix G, a project would normally have a significant effect on the environment if the project would:

- HAZ-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- HAZ-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.
- HAZ-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substance, or waste within one-quarter mile of an existing or proposed school.
- HAZ-4 Be located on a site which is included on a list of hazardous materials compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.
- HAZ-5 For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area.
- HAZ-6 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- HAZ-7 Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

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5.7.4 Applicable Policies and Design Features

5.7.4.1 PLANS, PROCEDURES, AND POLICIES

These include existing regulatory requirements, such as plans, policies, or programs, applied to the project based on federal, state, or local law currently in place and which effectively reduce impacts related to hazards and hazardous materials. These requirements are included in the project's Mitigation Monitoring and Reporting Program to ensure compliance:

- PPP HAZ-1 As required by Health and Safety Code Section 25507, a business shall establish and implement a business plan for emergency response to a release or threatened release of a hazardous material in accordance with the standards prescribed in the regulations adopted pursuant to Section 25503 if the business handles a hazardous material or a mixture containing a hazardous material that has a quantity at any one time above the thresholds described in Section 25507(a) (1) through (6).
- PPP HAZ-2 Any project-related hazardous materials and hazardous wastes will be transported to and/or from the Project Site in compliance with any applicable state and federal requirements, including the U.S. Department of Transportation regulations listed in the Code of Federal Regulations (Title 49, Hazardous Materials Transportation Act); California Department of Transportation standards; and the California Occupational Safety and Health Administration standards.
- PPP HAZ-3 Any Project-related hazardous waste generation, transportation, treatment, storage, and disposal will be conducted in compliance with the Subtitle C of the Resource Conservation and Recovery Act (RCRA) (Code of Federal Regulations, Title 40, Part 263), including the management of non-hazardous solid wastes and underground tanks storing petroleum and other hazardous substances. The Project will be designed and constructed in accordance with the regulations of the RCDEH, which serves as the designated Certified Unified Program Agency (CUPA) and which implements state and federal regulations for the following programs: (1) Hazardous Waste Generator Program, (2) Hazardous Materials Release Response Plans and Inventory Program, (3) California Accidental Release Prevention (CalARP), (4) Above Storage Tank (AST) Program, and (5) Underground Storage Tank (UST) Program.
- PPP HAZ-4 Any project-related underground storage tank (UST) repairs and/or removals will be conducted in accordance with the California UST Regulations (Title 23, Chapter 16 of the California Code of Regulations). Any unauthorized release of hazardous materials will require release reporting, initial abatement, and corrective actions that will be completed with oversight from the Regional Water Quality Control Board, Department of Toxic Substances Control, Riverside Fire Department, South Coast Air Quality Management District and/or other regulatory agencies, as necessary. Any Project-related use of existing USTs will also have

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to be conducted (i.e., used, maintained and monitored) in accordance with the California UST Regulations (Title 23, Chapter 16 of the California Code of Regulations).

PPP HAZ-5 Any project-related demolition activities that have the potential to expose construction workers and/or the public to asbestos-containing materials (ACMs) or lead-based paint (LBP) will be conducted in accordance with applicable regulations, including, but not limited to:

- South Coast Air Quality Management District's Rule 1403
- California Health and Safety Code (Section 39650 et seq.)
- California Code of Regulations (Title 8, Section 1529)
- California Occupational Safety and Health Administration Regulations (California Code of Regulations, Title 8, Section 1529 [Asbestos] and Section 1532.1 [Lead])
- Code of Federal Regulations (Title 40, Part 61 [asbestos], Title 40, Part 763 [asbestos], and Title 29, Part 1926 [asbestos and lead])

PPP HAZ-6 The removal of other hazardous materials, such as polychlorinated biphenyls (PCBs), mercury-containing light ballast, and mold, will be completed in accordance with applicable regulations pursuant to 40 CFR 761 (PCBs), 40 CFR 273 (mercury-containing light ballast), and 29 CFR 1926 (molds) by workers with the hazardous waste operations and emergency response (HAZWOPER) training, as outlined in 29 CFR 1910.120 and 8 CCR 5192.

PPP HAZ-7 Any project-related new construction, excavations, and/or new utility lines within 10 feet or crossing existing high-pressure pipelines, natural gas/petroleum pipelines, or electrical lines greater than 60,000 volts will be designed and constructed in accordance with the California Code of Regulations (Title 8, Section 1541).

5.7.4.2 PROJECT DESIGN FEATURES

No project design features relate to hazards and hazardous materials.

5.7.5 Environmental Impacts

As noted above, the site investigation and remediation efforts were divided into two separate areas that generally coincide with the proposed land uses in the Specific Plan (i.e. Business Park/ Industrial Park, and Open Space District). For the Open Space District, a Phase I and Site Assessment Work Plan have been prepared under the oversight of the DTSC.

5.7.5.1 BUSINESS PARK/INDUSTRIAL PARK

Preliminary Endangerment Assessment Sampling and Results

A Preliminary Endangerment Assessment (PEA) was prepared for the Business Park / Industrial project area (Langan 2017a). The purpose was to assess the potential for the presence or likely presence of hazardous

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substances or petroleum products that indicate an existing release, a past release, or a material threat of a release of hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water in connection with the property.

Soil Sampling Results

The 2017 PEA results were screened against the following screening levels within the following agency data sets:

- Environmental Screening Levels (ESLs) established by the San Francisco Bay Regional Water Quality Control Board (SFRWQCB) for commercial / industrial shallow soil. (Note: San Francisco Bay Regional Water Quality Control Board screening levels are used because the Santa Ana Regional Water Quality Control Board does not have screening levels).
- Regional Screening Levels (RSLs) established by USEPA Region 9 for industrial soil.
- Screening Levels (SLs) established by the DTSC for commercial / industrial soil.

The soil sampling results are shown in Table 5.7-4.

Table 5.7-4 Business Park/Industrial Park Soil Sampling Results

Chemical of Concern Soil	Concentration	Screening Level	Above Screening Level?
Arsenic	1.4 mg/kg to 14 mg/kg	10 mg/kg	Yes
Total Petroleum Hydrocarbons	Nondetect to 1,700 mg/kg	44 mg/kg	Yes
PCBs Aroclor 1246	Nondetect to 69 µg/kg	950 µg/kg	No
Naphthalene	Nondetect to 7.5 µg/kg	14.3 µg/kg	No

With the exception of arsenic, metals concentrations in soil were below the lowest of the selected screening levels. Arsenic was detected in 30 of the 40 samples analyzed for metals at concentrations ranging from 1.4 to 14 milligrams per kilogram (mg/kg). Arsenic concentrations measured throughout the site exhibit an approximate normal distribution. Background concentrations of arsenic in Southern California soils typically range from 1 to 10 mg/kg, which is consistent with concentrations measured at the site (Langan 2017b).

Groundwater and Surface Water Sampling

Field investigations were also conducted to evaluate concentrations of metals and/or VOCs in groundwater and surface water at the site. Sampling events were conducted in November/December 2016, March 2017, and May 2017. During each of these events, groundwater samples were collected from MW-3, MW-4, and the northern monitoring well (see Figures 5.7-1a and 5.7-1b), and surface water samples were collected from Crestmore Lake.

The samples were analyzed for metals (including CR^{VI}) and general minerals. Groundwater samples collected during the November/December 2016 sampling event were also analyzed for VOCs. CR^{VI} was the only metal

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of potential concern identified, and trans 1,2-dichloroethene was the only VOC identified in groundwater (see Table 5.7-5).

Table 5.7-5 Industrial Park/Business Park Groundwater and Surface Water Sampling Results

Chemical of Potential Concern Water	Concentration	Screening Level	Above Screening Level?
Hexavalent Chromium	Nondetect to 19 µg/l	50 µg/l	No*
Trans 1,2-dichloroethene	Nondetect to 2.1 µg/l	100 µg/l	No

* Total chromium MCL is currently 50 µg/l.

Screening-Level Risk Assessment

The PEA included a screening level risk assessment for the samples collected in the Business Park/Industrial Park using an industrial future worker and a construction worker.

Soil

Analytical results from the field investigations were compared to the risk-based screening levels in Table 5.7-6, applicable to the receptors and exposure pathways identified above.

Table 5.7-6 Risk-Based Screening Levels

Source	Screening Level	Applies To
San Francisco Bay Regional Water Quality Control Board	Direct Exposure Human Health Risk Levels; Any Land Use/ Any Depth Soil Exposure: Construction Worker	Construction Worker: Incidental soil ingestion Dermal contact with soil Dermal contact with equipment and debris from former site operations
San Francisco Bay Regional Water Quality Control Board	Direct Exposure Human Health Risk Levels; Commercial / Industrial Shallow Soil Exposure	Future Worker (Hypothetical): Incidental soil ingestion Dermal contact with soil Inhalation of particulates in ambient air
Environmental Protection Agency Region 9	Regional Screening Levels for Industrial Soil	All human receptors at industrial sites
California Department of Toxic Substances Control Office of Human and Ecological Risk	Screening Levels for Commercial / Industrial Soil	All human receptors at commercial / industrial sites

Source: Langan 2017b.

Table 5.7-7 includes the maximum reported concentration in soil and groundwater for metals and petroleum hydrocarbons in addition to the applicable screening levels.

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Table 5.7-7 Business Park/Industrial Park Sampling Results

Chemical of Concern	Maximum Concentration	Screening Level	Above Screening Level?
Arsenic - Soil	14 mg/kg	10 mg/kg	Yes
Lead - Soil	200 mg/kg	160 mg/kg	Yes
Nickel - Soil	150 mg/kg	86 mg/kg	Yes
Hexavalent Chromium - Groundwater	19 µg/l	50 µg/l*	No
Total Petroleum Hydrocarbons - Soil	1,700 mg/kg	44 mg/kg	Yes

* MCL for total chromium.

Metals

The analytical results for arsenic exceeded ESLs for shallow soil in the Future Worker (Hypothetical Scenario) exposure scenario (0.31 mg/kg) and the Construction Worker exposure scenario (0.97 mg/kg), as well as the RSL (3.0 mg/kg) and the DTSC's SL (0.36 mg/kg). As discussed previously, arsenic concentrations at the site are within the range of published background concentrations for Southern California.

Lead exceeded the ESL for shallow soil in the Construction Worker exposure scenario (160 mg/kg) in a sample collected at one foot below ground surface (bgs) (200 mg/kg), excavated near a potential surface water settling area (AOI #9) identified by the RWQCB.

Nickel exceeded the ESL for shallow soil in the Construction Worker exposure scenario (86 mg/kg) in a sample collected at two feet bgs (150 mg/kg) excavated at the northern boundary of the potential CKD-containing soil area near the Wet Weather Quarry.

Engineering controls and personal protective measures established in a Soils Management Plan are proposed to mitigate potential risks to construction workers during redevelopment (Langan 2017b).

Diesel Range Petroleum Hydrocarbons

TPH-d exceeded the ESLs for shallow soil in Future Worker (Hypothetical Scenario) exposure scenario (1,078 mg/kg) and the Construction Worker exposure scenario (885 mg/kg), as well as the RSL (44 mg/kg) in a sample collected at four feet bgs (1,700 mg/kg) and a sample collected at eight feet bgs (950 mg/kg), which was excavated at the former Sag Pond.

A Soils Management Plan would establish protocol and procedures for identifying, segregating, screening, and analyzing potentially impacted soils to confirm suitability for re-use or characterize for disposal. Additionally, engineering controls and personal protective measures established in a Soils Management Plan would address potential risks to construction workers during redevelopment (Langan 2017b).

Groundwater

Groundwater and surface water analytical results were compared to RWQCB Maximum Contaminant Levels (MCLs) for drinking water. Metals and VOCs in surface water and groundwater samples did not exceed their relevant MCLs. In 2017, the Superior Court of California for Sacramento County issued a judgment invalidating

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the Cr^{VI} MCL for drinking water of 10 $\mu\text{g}/\text{l}$. The court did not make any finding about whether the MCL adequately protected public health, nor did it reach a conclusion about whether the MCL was too low or too high. The court merely found that the department did not adequately document why the MCL was economically feasible. The court also ordered the State Water Board to adopt a new MCL for hexavalent chromium (SWRCB 2019). The total chromium MCL is 50 $\mu\text{g}/\text{l}$ which was not exceeded by the concentrations of Cr^{VI} in groundwater.

The PEA concluded that recent sampling of drinking water sources throughout California suggests that hexavalent chromium may occur naturally in groundwater at many locations (Langan 2017a). Sampling data obtained on 12 January 2017 from SWRCB's GeoTracker Groundwater Ambient Monitoring and Assessment (GAMA) Program database for nearby water supply wells up-, down-, and cross-gradient of the RCP indicate that nearby wells have historically measured hexavalent chromium concentrations that vary between 2.6 $\mu\text{g}/\text{l}$ to 20 $\mu\text{g}/\text{l}$ (up-gradient) and 2 $\mu\text{g}/\text{l}$ to 4.8 $\mu\text{g}/\text{l}$ (down-gradient).

Shallow groundwater (alluvial groundwater) is not anticipated to be used as a resource during or after site development and would not pose a health risk off-site (Langan 2017b).

In a response to the PEA in a letter dated February 28, 2018, the DTSC requested that a residential receptor be used in the screening level risk assessments to determine if land use restrictions or other remedies may be warranted for site closure. The DTSC:

- Requested development of a Site Assessment Work Plan, to include additional samples to characterize the project site.
- Requested that Criterion/Action Levels for utilizing soils containing contaminants should be established.
- Clarified that placement of contaminated soils should not require landfill permitting requirements, and therefore, hazardous waste levels and tests including leaching tests should be identified and performed to assess leaching characteristics of nonhazardous soils.
- Specified that all demolition waste and conventional trash should be exported off-site for disposal.
- Noted that if significant quantities of impacted soils are placed in areas like the Wet Weather Quarry, new groundwater monitoring well installation and establishment of a monitoring network would be required to ensure groundwater impacts do not develop in the future.
- Requested that soil gas surveys at select areas on the site be implemented including at all site areas that could have used or contained VOCs. Sampling to be performed, but not limited to the following AOIs: all ASTs and USTs with lighter end hydrocarbons (e.g., gasoline and diesel, waste oils); the six-million-gallon tank; AOI #3 - White Kiln Pipeline Release; AOI #5 through AOI #8; former Boiler Shop, Machine Shop, Repair Shop, Electric Shop; Stores; former Material Yard; Garage; Sag Pond; Spray Pond; and Reservoir.

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Site Assessment Work Plan

A SAWP was prepared for the Business Park/Industrial Park dated July 10, 2018, and divided the site into six study areas based on general operation with the former RCP. The SAWP was implemented to collect data in areas identified in the PEA and areas identified by the DTSC in their site inspection.

- **Surface Mining and Crushing Study Area.** The 28-acre area includes CKD-containing soil, crushing and reduction of limestone area, storage of iron ore, Wet Weather Quarry and transformer. Previous investigations occurred in this area to assess metal impacts in CKD to groundwater.
- **White Cement Plant.** The 11-acre area located in the southwestern portion of the site includes the White Cement Plant where mixing and milling raw materials, kilns to make cement clinker and grinders were located. Fuel oil AST, diesel UST, pipeline, boiler blowdown pond, kilns, silos, mills, crushers and transformers were in this area. RCDEH oversaw the closure of two USTs, and the boiler blowdown pond was closed by the SARWQCB. For the PEA, samples were analyzed for metals and/or TPH, PCBs, SVOCs and VOCs.
- **Grey Cement Plant.** The 29-acre area north of the Surface Mining and Crushing area included kilns, UST, water cooling system, silos, hopper boiler house, mills, baghouse, substation, ASTs, coal storage, berms, and transformers. Prior investigations in this area included groundwater sampling under the oversight of the SARWQCB and closure of a diesel UST under the oversight of RCDEH. For the PEA, PCBs and metals were not elevated in this area.
- **Material Storage Area.** The approximately 37-acre area was used for clinker and raw material storage and included a network of conveyor belts. The area included ASTs, crushed rock storage, gypsum storage, and berms. No prior investigations in this area had been identified prior to the preparation of the PEA. Sampling in the PEA did not find elevated metals or TPH in soil.
- **Maintenance, Administration and Packaging.** The approximately 51-acre area was used for supportive operations including equipment maintenance, fabrication, warehousing and administration. The area included ASTs, USTs, hazardous materials storage, abandoned substation, wash rack clarifier, spray pond, settling areas, stormwater retention basin, electric shop, boiler shop, machine shop, repair shop, compressor, silos, and transformers. Six USTs/ASTs were closed in this area under the oversight of RCDEH. During the PEA, TPH was reported at 1,700 mg/kg in the former sag pond. TPH, metals, VOCs and/or SVOCs were not elevated.
- **Vacant Land.** Approximately 60 acres of vacant land historically had residential homes that were destroyed during a fire. The area contains berms, monitoring wells, and former production wells. No prior investigations in this area had been identified prior to the preparation of the SAWP.
- **Hexavalent Chromium Sampling.** Ten soil samples were collected and analyzed in 2018 for metals and hexavalent chromium from the CKD located at different areas on the site. Cadmium, thallium, mercury, and hexavalent chromium were above screening levels in one or more samples.

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The SAWP was conditionally approved by the DTSC on July 19, 2018. The Summary of Findings for the Business Park/Industrial Park was submitted to the DTSC on August 31, 2018, and reviewed by the DTSC on October 16, 2018. The SAWP investigation included the excavation and soil sampling of 20 composite shallow test pits (SWs), 32 deep excavations (i.e., MAP-LT), 6 soil borings (i.e., MAP-SB), installation of 11 dual-nested soil gas probes (i.e., MAP-SG), and collection of soil gas samples. A total of 144 soil samples were collected. The soil samples were collected from the trenches and soil boring for one or more of the following analyses: TPH, VOCs, SVOCs, PAHs, Title 22 Metals, PCBs, dioxins, and Cr^{VI}. Soil gas samples collected from the 11 soil gas locations were analyzed for VOCs and TPH following EPA Method 8260B using an on-site mobile laboratory. The results indicated that VOCs and TPH were not detected above their respective reporting limits.

The following constituents were not reported above their respective reporting limits in the soil samples analyzed: PCBs, pesticides, VOCs and SVOCs. PAHs were reported in 3 samples of the 48 analyzed above their respective detection limit; however, there is not a corresponding DTSC soil commercial/industrial SL for these compounds. The PAH compounds detected included 2-methylanphthalene, anthracene, phenanthrene, pyrene, chrysene, and fluoranthene. The highest concentration of these compounds (phenanthrene) was reported at 31 micrograms per kilogram (µg/kg). Dioxins were reported below the residential SL of 50 ppt in 68 samples analyzed at the site. A total of 87 soil samples were analyzed for TPH. The maximum TPH concentration reported was 524.5 milligrams per kilogram (mg/kg) within the motor oil range (C23 to C40) in the Material Storage Area.

The SOF concluded the following:

- Arsenic was reported above the DTSC SL site-wide (114 samples) and above the published upper bound regional background concentrations of 10 mg/kg (29 samples). The maximum arsenic concentration associated with soils above the regional background was 28.9 mg/k.
- A single lead concentration was detected above the SL of 320 mg/kg at 514 mg/kg in the Material Storage Area in a white clay material, which was a feed product in the cement manufacturing process. The other 170 samples analyzed for lead were below the SL of 320 mg/kg.
- Cr^{VI} was reported above the EPA commercial/industrial Regional Screening Level (RSL) of 6.3 mg/kg in three samples. One sample was collected in a berm east of the Grey Kilns and former baghouses where previous CKD was placed during the cement plant operations. Two samples were located in the Wet Weather Quarry area where non-specification cement product was deposited during the cement plant operations.
- The SOF concluded that the lead and Cr^{VI} concentrations that exceed their respective SLs appear to be associated primarily with former cement feed product (i.e. white clay and/or CKD), and appear to be localized within the Material Storage Area, Gray Cement Plant, and in the vicinity of the Wet Weather Quarry.

During the implementation of the SAWP trench sampling, sampling was not possible in the Maintenance, Administration, and Packaging and Grey Cement Plant study areas because of site conditions. The proposed trenches in these areas are located where the former original cement plant was demolished prior to the

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subsequent renovations and construction of the present-day cement plant. In addition, the area of the former Sag Pond (where TPH concentrations were encountered, 1,700 mg/kg and 950 mg/kg at 4 feet and 8 feet, respectively) during Langan's PEA was not accessible during this assessment due to debris prohibiting access. These areas are planned to be addressed during the demolition phase of the project, along with the areas underlying the existing buildings/structures, as outlined in the DTSC-approved SAWP. These areas would be addressed in the Response Plan, which would include a Demolition Plan and Soils Management Plan that would be submitted and approved by DTSC prior to implementation.

The DTSC in their review of the SOF in a letter dated October 16, 2018, indicated that process-related materials would be segregated based on visual observation during grading and handled appropriately based on further characterization results. The DTSC indicated further localized evaluation of arsenic due to the maximum concentration detected in soil appearing significantly higher than the maximum background concentration.

Southern California Edison Substation Workplan

An electrical substation located in the Maintenance, Administration and Packaging area is planned to have a warehouse building located over the area. An Environmental Assessment Workplan for Southern California Edison Substation dated November 26, 2018, was prepared by Langan in response to a meeting that was held between representatives from the DTSC, Southern California Edison, Langan, and RCP. The meeting was to discuss a sampling strategy to evaluate potential impacts from the substation. The workplan proposed soil sampling around four transformer, grounding grids, and concrete chip sampling of the concrete pads. Samples would be analyzed for metals and PCBs. Select samples would be analyzed for hexavalent chromium and TPH to evaluate impact from cement manufacturing process and oil tanks. In the area where oil staining was observed in the substation, select samples would be analyzed for PAHs and SVOCs. Results are not available at this time for the sampling in this area.

5.7.5.2 OPEN SPACE DISTRICT

A Phase I Environmental Site Assessment (ESA) dated May 24, 2018, was prepared for the open space area by Langan. The Open Space District area consists of approximately 79 acres along the southern portion of the RCP. The eastern half of the Open Space area contains the Commercial Quarry, unpaved roads, and CKD-containing soil areas. The western half contains the flooded Crestmore Quarry, seven buildings that supported the mine/quarry operations, a mine shaft, two mine vents, and an area of former Kaolin clay storage. The Union Pacific Railroad (UPRR) track runs along the western portion of Open Space area. Seven buildings associated with the RCP are in the area. Two groundwater monitoring wells are located in the area. In addition, a septic system is located southwest of the seven buildings. The septic system was included in this Phase I ESA as it supported both the RCP and the mine operations.

The following Recognized Environmental Conditions (RECs) were identified for the Open Space Area:

- **REC 1:** CKD was placed in the Commercial Quarry and an area southwest of the Commercial Quarry. CKD may have been placed along the southern portion of the area along with refractory brick.
- **REC 2:** Mine Shaft and Mine Vents may have been used to place various materials.

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- **REC 3:** Former Blacksmith Shop that is currently demolished may have used quenching fluids.
- **REC 4:** A 1,500- to 2,000-gallon AST located near the Commercial Quarry with staining observed beneath the tank.
- **REC 5:** A 250-gallon hydraulic fluid reservoir was observed in the Material Testing Lab.
- **REC 6:** Two septic tanks were identified on the western side of the area.
- **REC 7:** Two pole-mounted transformers were located adjacent to the Research Furnace building that were described as in poor condition and corroded.

Groundwater was not considered an REC for the site based on groundwater monitoring results from 2016 and 2017. DTSC did not provide comments to the Phase I for the Open Space District.

A SAWP was prepared for the Open Space area dated January 7, 2019, by Langan. The SAWP divided the open space area into four lots based on the CLRRRA agreements (Lots A through D). Table 5.7-8 identifies the lot, acreage and proposed usage. The SAWP was prepared and approved by the DTSC when the Open Space was being considered for a recreational park. Although the recreational park use is not going forward at this time, the additional investigative work identified in the SAWP will be completed.

Table 5.7-8 Historical and Proposed Land Uses, Open Space Area

Lot Designation	Acreage	Historical Usage	Planned Usage
A	5.09	Former Operations Area, mine buildings and administration offices. Mine vents, transformers	Undeveloped Open Space (formerly proposed for commercial/industrial area, parking lot, and visitor center, and museum/interpretive center.
B	65.87	Quarry Area. Commercial Quarry, Crestmore Quarry, CKD containing soil, AST, mine vent	Undeveloped Open Space (formerly proposed as Recreational park, fenced-off trails, viewpoints, hiking/biking trail with rest areas..
C	1.06	Open space	Undeveloped land
D	3.25	Septic tanks and piping	Potentially used for commercial/industrial purposes.

Based on the results of the implementation of this SAWP, a Response Plan would be developed to outline the proposed remedy to address any identified potential impacts encountered during the site redevelopment. As part of the redevelopment program, the on-site structures (mine offices, administration buildings, and various structures) would be decontaminated and demolished prior to redevelopment. The decontamination and demolition phase would occur concurrently with decontamination and demolition activities on the northern portion (Business Park/Industrial Park) of the RCP. Any additional sampling of areas previously inaccessible due to on-site structures would be conducted during the demolition phase. After the demolition and additional sampling, regrading and redevelopment of the site would take place.

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The SAWP was approved by the DTSC on January 14, 2019. Sampling was implemented in January and February 2019. The SOF currently has not been approved and posted by the DTSC, but a summary was prepared by Langan. The investigation of the Open Space District found the following:

- Soil vapor samples were collected from two soil vapor probe locations and were analyzed for VOCs, TPH, and methane. The results indicated that VOCs, TPH, and methane were not detected above their respective reporting limits. No further soil gas investigation is being recommended by Langan.
- The following constituents were not reported above their respective DTSC SLs and/or EPA RSLs in the soil samples analyzed: VOCs, SVOCs, PAHs, PCBs, and dioxins. Dioxins were reported below the DTSC Residential SL of 50 parts per trillion (ppt) in the four samples collected and analyzed at the site. No further investigation is being recommended for the above compounds for the site.
- A total of 27 soil samples were collected and analyzed for TPH. The maximum TPH concentration reported was 118 milligrams per kilogram (mg/kg) within the heavy fuel oil range (C28-C33).
- Arsenic was reported above the DTSC SL site-wide (69 samples). Arsenic was reported at concentrations ranging from 4.4 mg/kg to 94 mg/kg.
- Thallium was reported above the EPA Industrial RSL of 1.2 mg/kg in three soil samples. These samples were collected from an area of white cementitious material. The other 125 samples analyzed for thallium were below the RSL of 1.2 mg/kg. This material is visually distinguishable and would be managed during the implementation of the Soil Management Plan, if needed. Based on this information, no further investigation is recommended for thallium.
- Cr^{VI} was reported above the EPA Industrial RSL of 6.3 mg/kg in one sample. This sample was collected from the white cementitious material. This material is visually distinguishable and would be managed during the implementation of the Soil Management Plan, if needed. The other 127 samples analyzed for Cr^{VI} were below the RSL of 6.3 mg/kg.
- Mercury was detected in four samples above the DTSC commercial/industrial standards of RSL 4.4 mg/kg. The mercury concentrations ranged from 8.0 mg/kg to 30 mg/kg. Mercury was initially identified as a chemical of potential concern through comparison to elemental mercury (Hg[0]) screening levels; however, the most prevalent valence states for mercury in soil are Hg(1) and Hg(2). Mercury can exist in either the monovalent or divalent forms as inorganic compounds, such as mercuric chloride. Consequently, maximum total mercury concentrations were compared to the mercuric chloride residential RSL (23 mg/kg), and mercury was eliminated as a chemical of potential concern in Lots B and D. The sample locations are in Lot D. Mercury would be further addressed in the Response Plan and Soil Management Plan.

The following impact analysis addresses thresholds of significance for which impacts are considered potentially significant.

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Impact HAZ-1 Threshold: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Proposed Operation

Operation of the business park would involve the use of small amounts of hazardous materials, such as cleansers, greases, and oils for cleaning and maintenance purposes. However, three of the proposed buildings are industrial in nature, intended for manufacturing and/or warehousing uses. Project operation would involve transport, use, and disposal of hazardous materials; the specific substances and quantities of such materials are presently unknown.

The use, storage, transport, and disposal of hazardous materials would be governed by existing regulations of several agencies, including the US Environmental Protection Agency, US Department of Transportation, California Division of Occupational Safety and Health, and the Riverside County Department of Environmental Health.¹ Compliance with applicable laws and regulations governing the use, storage, transportation, and disposal of hazardous materials would ensure that all potentially hazardous materials are used and handled in an appropriate manner and would minimize the potential for safety impacts.

The proposed project would also be constructed and operated with strict adherence to all emergency response plan requirements set forth by the RCDEH and the Riverside County Fire Department.

Project Construction

The brownfield site is being decommissioned and prepared for environmental remediation and successful redevelopment under the requirements of the Specific Plan. The mass grading for the site includes cuts and fills up to 35 feet, with total grading yardage estimated at between one and two million cubic yards. The Project site is expected to balance; however, as a conservative measure, it is estimated that up to 20,000 cubic yards of soil may need to be exported off-site for disposal.

Response Plan

The CLRRRA Agreements between the project applicant and DTSC require preparation of a Response Plan, which includes a soils management plan (SMP) with a contingency plan for potential areas encountered during demolition, grading, or construction, and an air monitoring plan for demolition and grading activities in compliance with SCAQMD Rule 1156 and/or Rule 403, as applicable. The Response Plan was submitted to the DTSC as an initial draft on December 21, 2018. As a responsible agency under CEQA, DTSC would use this Draft EIR prepared for the project as the CEQA document to support approval of the Response Plan. The DTSC would conduct its own public outreach/public review process specific to the Response Plan, in accordance with the public participation requirements set forth in HSC Section 25395.96.

¹ RCDEH Hazardous Materials Branch is the CUPA for Jurupa Valley; the Unified Program coordinates and makes consistent enforcement of several state and federal regulations governing hazardous materials.

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Soil Sampling and Management

Soil samples would be collected before excavation activities are initiated to assist in characterizing the soils. Discrete and composite soil sampling would occur pursuant to the SMP. All sampling would occur under DTSC oversight, with periodic site visits throughout the site assessment phase by DTSC personnel. Notification of field activities is governed by Section 5.14 of the CLRRRA Agreement, which requires that advance notice be given so that DTSC has an opportunity to observe the sampling and obtain its own duplicate samples, if desired.

Evaluation of soil sampling results would classify excavated soil into three categories:

- Soils to be disposed off-site due to hazardous classification, unacceptable risk to human health, or groundwater protection.
- Impacted soil (above screening levels for commercial/industrial use or groundwater protection) that could be disposed off-site or placed on-site in designated capped areas, as deemed appropriate by DTSC.
- Soil that meets screening levels for both commercial/industrial use and groundwater protection, and that can be used in an unrestricted manner as fill material across the site.

Due to the large scale of the brownfield redevelopment project and the complexity involved, the DTSC recognizes and anticipates that not all of the sampling locations would be known until after completion of the Draft EIR (Langan 2018, p.3, par. 1). For example, some soil characterization may need to be completed only after demolition activities have progressed (such as after building/structure foundation slabs are removed). DTSC staff would be present on-site at regular intervals during this process to visually observe and document areas of soil with staining, odors, etc. that may indicate the need for additional sampling, characterization, and management. In addition, the demolition contractor would be provided with appropriate protocols to stop work and promptly notify the environmental engineer for the project and DTSC if any areas of suspected impacts are encountered during demolition and grading activities. Pregrading soil characterization may also be required, which would be determined based upon initial sampling results and the final detailed cut/fill grading plan.

Based on preliminary sampling results, it is not anticipated that significant quantities of soil would need to be removed from the site for off-site placement or disposal. The vast majority of the soil meets screening levels for commercial/industrial use and groundwater protection and is proposed to be used across the site as fill material.

Following grading, the placement of the building pads and pavement on each parcel of the redevelopment site could serve as an engineering control or “cap” on the site, if required by DTSC, to prevent exposure to potential fugitive dust. Finally, a land use covenant or deed restriction, as required by Health and Safety Code (HSC) Section 25395.99, may be recorded for each parcel, as required, limiting the use of the properties for commercial/industrial development and prohibiting future development of other uses. If any on-site designated area is proposed to contain contaminated soils, a long-term Operations and Maintenance (O&M) Plan would be required to be approved by DTSC, including engineering controls, maintenance and regular inspections, and groundwater monitoring, as required by HSC Section 25395.97(b).

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Waste Management

A waste management plan would be prepared by the project applicant (or applicant's demolition/construction contractor) and reviewed by DTSC prior to commencement of demolition activities. The purpose of the waste management plan is to ensure appropriate handling, storage, removal, and transport of materials on the redevelopment site, including materials that would be salvaged/recycled or that are planned to be transferred to identified local permitted landfills. The majority of existing concrete within the redevelopment site is planned for recycling and would be crushed to be used as road base and/or fill material. DTSC has indicated that sampling of this material would be required prior to use to verify that it does not exceed screening levels for commercial/industrial use.

Decontamination and Demolition

A decontamination/demolition plan would also be prepared by the project applicant (or applicant's demolition/construction contractor) and reviewed by DTSC prior to commencement of decontamination/demolition activities. The purposes of the decontamination/demolition plan are to:

- Provide decontamination processes as necessary including procedures for safe demolition of buildings and the removal of processing equipment and tanks in accordance with the demolition permit that would be issued by the City of Jurupa Valley.
- Designate staging areas for items that are slated to be salvaged, recycled, or disposed of.
- Ensure compliance with applicable air quality regulations.
- Include guidelines for effective coordination between the project applicant and DTSC staff to ensure that timely site visits occur at the appropriate stages of demolition.
- Provide the protocol for identification of potential new AOIs that may be discovered during the demolition phase.
- Identify and list local disposal facilities.

Before demolition, an updated hazardous materials survey may be conducted to identify the locations and quantities of lead based paint, ACM, and miscellaneous universal waste (MUW) in above-ground structures. Hazardous materials would be removed from the on-site structures by a licensed hazardous materials abatement contractor that is experienced in handling and removing these types of wastes. These materials would be transported to a licensed disposal facility that accepts this type of waste.

Fugitive Dust Control

The current site operator is subject to SCAQMD Rule 1156, which is intended to protect the public from hexavalent chromium exposure from cement manufacturing operations. The current site operator is required to implement two SCAQMD-approved plans (Compliance Plan for Post Closure Activities and Compliance Monitoring Plan) according to Rule 1156. Upon transfer of ownership, the project applicant would comply

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with SCAQMD Rule 1156 and Rule 403, as applicable, to control fugitive dust during facility dismantling/demolition, removal of cement dust/materials, and during remediation-related activities, which would be conducted under DTSC oversight. The project would comply with applicable mandatory SCAQMD requirements and the provisions of the DTSC-approved decontamination/demolition plan.

Response Action Completion Report

A response action completion report would be prepared and approved by DTSC to verify compliance with all plan requirements and facilitate the issuance of a certificate of completion/no further action letter in compliance with HSC Section 25395.97, containing an exception for any required long-term O&M requirements or monitoring required for the site. The certificate of completion/no further action letter would be issued within 30 days of receipt of an acceptable response action completion report, O&M plan and agreement (if required), and the executed land use restriction.

Construction Hazardous Materials

Project-related construction activities would involve the use of larger amounts of hazardous materials than would project operation. Construction activities would include the use of materials such as fuels, lubricants, and greases in construction equipment and coatings used in construction. However, the materials used would not be in such quantities or stored in such a manner as to pose a significant safety hazard. These activities would also be short term or one time in nature and would cease upon completion of the proposed project's construction phase. Project construction workers would also be trained in safe handling and hazardous materials use.

Additionally, as with project operation, the use, storage, transport, and disposal of construction-related hazardous materials would be required to conform to existing laws and regulations. Compliance with applicable laws and regulations governing the use, storage, transportation, and disposal of hazardous materials would ensure that all potentially hazardous materials are used and handled in an appropriate manner and would minimize the potential for safety impacts. For example, all spills or leakage of petroleum products during construction activities are required to be immediately contained, the hazardous material identified, and the material remediated in compliance with applicable state and local regulations for the cleanup and disposal of that contaminant. All contaminated waste would be required to be collected and disposed of at an appropriately licensed disposal or treatment facility.

Furthermore, strict adherence to all emergency response plan requirements set forth by RCDEH would be required through the duration of the project construction phase.

Hazards to the public or the environment arising from the routine use of hazardous materials during project construction and operation would be less than significant; however, hazards from the transport, reuse, and disposal of impacted soils could be potentially significant and requires mitigation.

Level of Significance before Mitigation: Impact HAZ-1 would be potentially significant. Mitigation Measures MM HAZ-1 to MM HAZ-7 are required to reduce Impact HAZ-1 to less than significant.

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Impact HAZ-2 Threshold: Would the project 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?

Construction and site preparation activities associated with implementation of the proposed project could increase hazardous materials use and the associated risk of accident conditions involving the release of hazardous materials in the project area. The project site has been found to have some areas impacted by CKD.

Without mitigation, contaminants could pose a health risk to future employees and visitors within the project site. Mitigation measures (Section 5.7-8) include the approval and implementation of response plans and works plans that would include multiple dust control strategies. Air monitoring would be conducted in accordance with local air quality management regulations, and equipment used to excavate, transport, and manage soil would be decontaminated through a process of brushing and washing in a central decontamination area. In addition, construction activities would not involve a significant amount of hazardous materials, and the use of hazardous materials would be temporary.

See response to Impact HAZ-1, above. Impact HAZ-2 requires mitigation.

Level of Significance before Mitigation: Impact HAZ-2 would be potentially significant. Mitigation Measures MM HAZ-1 to MM HAZ-7 are required to reduce Impact HAZ-2 to less than significant.

Impact HAZ-3 Threshold: Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substance, or waste within one-quarter mile of an existing or proposed school?

There are no schools within one-quarter mile of the project site. The closest school is Walter Zimmerman Elementary School at 11050 Linden Avenue in Bloomington, approximately 1.4 miles north of the project site.

Level of Significance before Mitigation: HAZ-3 would cause no impact.

Impact HAZ-4 Threshold: Would the project be located on a site which is included on a list of hazardous materials compiled pursuant to Government Code Section 65962.5 and, as a result, could create a significant hazard to the public or the environment.

The site was identified in several local, state, and federal agency databases:

- The site is listed on the federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) site.
- The Superfund Enterprise Management System (SEMS) database lists the site as a “state-lead cleanup” that is not included in the National Priority List (NPL).
- The ENVIROSTOR database indicates that the Regional Water Quality Board (RWQCB) and the EPA are agencies that have been involved with the site. Potential chemicals of concern are listed as Polychlorinated Biphenyl (PCB) and hexavalent chromium. The site is listed as an active site in the voluntary cleanup program with the DTSC.

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- The Leaking Underground Storage Tank (LUST) database indicates the site status as “completed - case closed as of November 5, 1991”. The lead agency is RCDEH who administers the Riverside County Local Oversight Program. Heating oil/fuel oil is identified as a potential chemical of concern.
- According to the aboveground storage tank (AST) database, the total AST storage capacity at the site is 5,000 gallons. The Certified Unified Program Agency (CUPA) for the site is RCDEH.
- The site is listed on the local lists of landfill/solid waste disposal sites (WMUDS/SWAT).
- The site is listed on the local lists of registered storage tanks.
- LDS: The site is listed as a land disposal site with the Santa Ana Regional Water Quality Control Board. The site is listed as case closed as of November 2009.
- The site is listed on the Toxic Substances Control Act (TSCA) site.
- ICIS: The site is listed as having an administrative order and notice of violation.
- US AIRS: The site is listed on the Aerometric Information Retrieval System list, an EPA list for air pollution point sources.
- Abandoned Mines: The site is listed on the Department of Interiors list of sites impacted by past mining operations.
- FINDS: The site is listed for airborne pollution from industrial plants.
- ECHO: The site is listed on the Enforcement and Compliance History Information list maintained by the EPA for compliance and enforcement information on regulated facilities.
- EMI: The site is listed with South Coast Air Quality Management District for emissions from 1987 to 2015.
- HAZNET: The site is listed for the transport and disposal of polychlorinated biphenyls (PCBs), organic solids, waste oil, and oxygenated solvents.
- Historical CORTESE: The site is listed by the DTSC on the Hazardous Waste and Substances Site List, a database that is no longer updated by the state.
- NPDES: The site is listed by the State Water Resources Control Board for having a NPDES permit.
- WDS: The site is listed by the State Water Resources Control Board as a Waste Discharge System.

Several adjacent and surrounding properties were also identified in the regulatory databases. Based on distance, topographically cross-gradient or down-gradient relative to the site, and the non-violation status, none of the adjacent and surrounding properties are listed to have current or former releases of hazardous substances that are likely to impact the site at levels requiring regulatory cleanup action.

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Level of Significance before Mitigation: Impact HAZ-4 would be potentially significant. Mitigation Measures MM HAZ-1 to MM HAZ-7 are required to reduce Impact HAZ-4 to less than significant.

Impact HAZ-5 **Threshold: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport and would not result in a safety hazard for people residing or working in the project area?.**

The closest airports to the project site are Flabob Airport and Riverside Municipal Airport approximately 3.0 and 6.5 miles southwest of the site, respectively. Given the distance, the project site is not located within the airport land use plan of either Flabob or Riverside Municipal Airports.

There are no private airstrips within two miles of the proposed project (AirNav 2018); therefore, the project would not result in a safety hazard for people residing or working in the project area.

Level of Significance before Mitigation: HAZ-5 would cause no impact.

Impact HAZ-6 **Threshold: Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

The Riverside County Emergency Management Department (EMD) is responsible for coordinating all emergency management activity in the City and implementing the County's Emergency Operations Plan (EOP). The County's EOP addresses how the County and City should respond to extraordinary events or disasters (e.g., aviation accidents, civil unrest and disobedience/riot, dam and reservoir failure, disease, earthquake, flood, etc.), from preparedness phase through recovery.

Construction activities associated with the proposed project, including staging and stockpiling, would occur within the project boundaries and would not occur on any major arterials or highways that may be used during potential emergency situations. The proposed project would also be required to provide adequate access for emergency vehicles per the California Fire Code. Any short-term temporary impacts on adjacent roadways (i.e., El Rivino Road, Hall Avenue, and Rubidoux Boulevard) would be temporary and limited to the construction period. Thus, the proposed project would not impair implementation or physically interfere with the City's ability to implement the EOP.

Additionally, storage of construction materials and construction equipment—such as construction office trailers, cranes, storage containers, and trailers detached from vehicles—is prohibited on City property, including City streets, without a permit. Project construction would comply with City requirements regarding storage on City property, including City streets. Construction material and equipment would be staged or stored on-site and would not interfere with emergency access to or evacuation from surrounding properties. Impacts would be less than significant.

As part of the City's discretionary review process, the City reviewed the proposed project design to ensure that during operation appropriate emergency ingress and egress would be available to project site, and determined that the proposed project would not substantially impede emergency response routes in the local area. Impacts would be less than significant.

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Level of Significance before Mitigation: Impact HAZ-6 is less than significant.

Impact HAZ-7	Threshold: Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?
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According to the California Department of Forestry and Fire Protection's (CAL FIRE) map, "Western Riverside County Very High Fire Hazard Severity Zones in LRA," the entire project site is outside of any fire hazard severity zone (CAL FIRE 2009). Thus, development of the proposed project would not expose people or structures to wildland fire hazards.

Level of Significance before Mitigation: HAZ-7 would cause no impact.

5.7.6 Cumulative Impacts

The area considered for cumulative impacts is Riverside County, the service area for RCDEH Hazardous Materials Branch, the affected CUPA. The population of Riverside County is forecast to increase from about 2.32 million in 2015 to 3.17 million in 2040, and employment in the county is forecast to increase from about 742,000 to 1.12 million over the same period (SCAG 2016). Other projects would use, store, transport, and dispose of increased amounts of hazardous materials and thus could pose substantial risks to the public and the environment. The use, storage, transport, and disposal of hazardous materials by other projects would conform with regulations of the multiple agencies described in Section 5.7.1.5, above. Cumulative impacts would be less than significant after compliance with such regulations, and project impacts would not be cumulatively considerable.

5.7.7 Level of Significance Before Mitigation

HAZ-3, HAZ-4, HAZ-5, and HAZ-7 would have no impact.

Upon implementation of regulatory requirements and standard conditions of approval, HAZ-6 would be less than significant.

Without mitigation, these impacts would be potentially significant: HAZ-1, HAZ-2 and HAZ-4.

- **HAZ-1** Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials.
- **HAZ-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.
- **HAZ-4** Be located on a site which is included on a list of hazardous materials compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

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5.7.8 Mitigation Measures

Impacts HAZ-1, HAZ-2, and HAZ-4

- MM HAZ-1 Prior to issuance of project demolition permits by the City of Jurupa Valley, the project applicant shall submit a Demolition Plan to the California Department of Toxic Substances Control (DTSC) for review and approval and shall submit proof of that approval to the City of Jurupa Valley. The project applicant shall also provide written verification to the City of Jurupa Valley demonstrating DTSC approval of a Waste Management Plan. The applicant shall fully comply with the approved plans, which together shall ensure compliance with local air district requirements; ensure appropriate equipment and structures/buildings decontamination, tank removal, if applicable, and building/equipment demolition; designate appropriate waste and recycling material staging areas; and provide protocols to identify areas that require additional sampling based on visual observations and field monitoring instruments (e.g., photo ionization detector) during demolition activities. A Contingency Plan shall be included as part of the Demolition Plan. The Contingency Plan shall address actions to be taken in the event that, during demolition activities, unanticipated conditions are discovered that warrant additional assessment and remediation. If such conditions are discovered, the project applicant shall promptly comply with DTSC notice requirements and shall provide the City with a copy within 24 hours of any such notification made to DTSC.
- MM HAZ-2 Prior to issuance of project grading permits on the industrial portion of the project site, the project applicant shall provide written verification to the City of Jurupa Valley demonstrating DTSC approval of: 1) a Site Assessment Workplan, 2) Summary of Findings, and 3) a Response Plan. The Site Assessment Workplan shall comply with California Health and Safety Code Section 25395.94 and Section 5.3 of the CLRRA Agreements between the project applicant and DTSC. The Site Assessment Workplan will provide protocols for additional sampling in areas identified by DTSC staff to ensure that on-site soils are fully characterized, to the extent practicable, and to ensure proper classification of on-site soils for on-site reuse or for off-site disposal. The Report of Findings (or Summary of Findings) combined with the Site Assessment Workplan will constitute the Site Assessment Plan required under California Health and Safety Code Section 25395.94 and Section 5.3 of the CLRRA Agreements between the project applicant and DTSC. The Response Plan shall comply with California Health and Safety Code Section 25395.96 and Section 5.4 of the CLRRA Agreements between the project applicant and DTSC. Potential response actions include soil management, land use controls, cover, capping, and long-term operation and maintenance, as needed. The Response Plan will include measures to address worker and public safety, air quality, groundwater protection, and fugitive dust generated from the earthmoving activities during implementation of the response action. The Response Plan will include components such as:
- A Soils Management Plan to ensure safe and appropriate handling of site soils and transport and off-site disposal, if necessary.

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- A Contingency Plan for new findings that may occur during site grading.
- Dust control measures and an Air Monitoring Plan in accordance with SCAQMD Rule 1156, Rule 1466, and Rule 403, as applicable.
- Any other components deemed necessary by the DTSC to protect groundwater, air quality, or human health or as required by California Health and Safety Code Sections 25395.94 and 25395.96.

MM HAZ-3 Prior to issuance of project grading permits on the SCE Substation portion of the project site, the project applicant shall provide written verification to the City of Jurupa Valley demonstrating DTSC approval of: 1) a Site Assessment Workplan, 2) Summary of Findings, and 3) a Response Plan. The Site Assessment Workplan shall comply with California Health and Safety Code Sections 25395.94 and Section 5.3 of the CLRRA Agreements between the project applicant and DTSC. The Site Assessment Workplan will provide protocols for additional sampling in areas identified by DTSC staff to ensure that on-site soils are fully characterized, to the extent practicable, and to ensure proper classification of on-site soils for on-site reuse or for off-site disposal. The Report of Findings (or Summary of Findings) combined with the Site Assessment Workplan together will constitute the Site Assessment Plan required under California Health and Safety Code Section 25395.94 and Section 5.3 of the CLRRA Agreements between the project applicant and DTSC. The Response Plan shall comply with California Health and Safety Code Section 25395.96 and Section 5.4 of the CLRRA Agreements between the project applicant and DTSC. Potential response actions include soil management, land use controls, cover, capping, and a long-term operation and maintenance plan, as needed. The Response Plan will include measures to address worker and public safety, air quality, groundwater protection, and fugitive dust generated from the earthmoving activities during implementation of the response action. The Response Plan will include components such as:

- A Soils Management Plan to ensure safe and appropriate handling of site soils and transport and off-site disposal, if necessary.
- A Contingency Plan for new findings that may occur during site grading.
- Dust control measures and an Air Monitoring Plan in accordance with SCAQMD Rule 1156, Rule 1466, and Rule 403, as applicable.
- Any other components deemed necessary by the DTSC to protect groundwater, air quality, or human health or as required by California Health and Safety Code Sections 25395.94 and 25395.96.

MM HAZ-4 Prior to issuance of building permits for construction of project buildings on a particular parcel, the project applicant shall provide a copy or copies of a deed restriction or land use covenant, as applicable, that has been recorded over the parcel for which a building permit is sought. The deed restriction or land use covenant shall serve as a land use control to limit the use of the parcel to commercial/industrial use and prohibit future noncommercial

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/nonindustrial development, and shall be in a form approved by the DTSC and recorded pursuant to California Health and Safety Code Section 25395.99.

- MM HAZ-5 Prior to issuance of a Certificate of Occupancy for each building within the Agua Mansa Commerce Park, the project applicant shall undertake and complete the necessary remedial actions identified for that respective parcel within the Response Plan under the oversight of the DTSC. The project applicant shall provide written verification from DTSC to the City of Jurupa Valley Planning Director demonstrating either: 1) that the parcel has been remediated sufficiently to allow safe occupancy; or 2) issuance of a DTSC Certificate of Completion for the Response Action on the parcel for which a Certificate of Occupancy is sought. The written verification shall serve to indicate that the parcel is suitable for commercial/industrial development based upon screening levels appropriate for a commercial land use exposure scenario, or other risk methodology required by the DTSC, and that no further investigation or remediation is required other than any long-term operation and maintenance requirements or monitoring that may be required by DTSC or other regulatory agencies.
- MM HAZ-6 Prior to issuance of project demolition permits by the City of Jurupa Valley for the Open Space area, the project applicant shall submit a Demolition Plan to the California Department of Toxic Substances Control (DTSC) for review and approval. The project applicant shall also provide written verification to the City of Jurupa Valley demonstrating DTSC approval of a Waste Management Plan. The applicant shall fully comply with the approved plans, which together shall ensure compliance with local air district requirements; ensure appropriate equipment and structures/buildings decontamination, tank removal, if applicable, and building/equipment demolition; designate appropriate waste and recycling material staging areas; and provide protocols to identify areas that require additional sampling based on visual observations and field monitoring instruments (e.g., Photo Ionization Detector) during demolition activities. A Contingency Plan shall be included as part of the Demolition Plan. The Contingency Plan will address actions to be taken in the event that, during demolition activities, unanticipated conditions are discovered that warrant additional assessment and remediation. If such conditions are discovered, the project applicant shall promptly comply with DTSC notice requirements and shall provide the City with a copy within 24 hours of any such notification made to DTSC.
- MM HAZ-7 Prior to issuance of project grading permits in the Open Space area, the project applicant shall provide written verification to the City of Jurupa Valley demonstrating DTSC approval of: 1) a Site Assessment Workplan, 2) Summary of Findings, and 3) a Response Plan. The Site Assessment Workplan shall comply with California Health and Safety Code Section 25395.94 and Section 5.3 of the CLRRA Agreements between the project applicant and DTSC. The Site Assessment Workplan will provide for additional sampling in areas identified by DTSC staff to ensure that the soils within the proposed open space area are fully characterized, to the extent practicable, and to ensure proper classification of on-site soils for on-site reuse or for off-site disposal. The Report of Findings (or Summary of Findings) combined with the Site Assessment Workplan will constitute the Site Assessment Plan required under California

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Health and Safety Code Section 25395.94 and Section 5.3 of the CLRRA Agreements between the project applicant and DTSC. The Response Plan shall comply with California Health and Safety Code Section 25395.96 and Section 5.4 of the CLRRA Agreements between the project applicant and DTSC. The Response Plan will include measures to address worker and public safety, air quality, groundwater protection, and fugitive dust generated from the earthmoving activities during implementation of the response action. The Response Plan will include components such as:

- A Soils Management Plan to ensure safe and appropriate handling of site soils and transport and off-site disposal, if necessary.
- A Contingency Plan for new findings that may occur during site grading.
- Dust control measures and an Air Monitoring Plan in accordance with SCAQMD Rule 1156, Rule 1466, and Rule 403, as applicable.
- Any engineering or administrative controls or long-term operations and maintenance plan that is required by DTSC; and any other components deemed necessary by the DTSC to protect groundwater, air quality, or human health or as required by California Health and Safety Code Sections 25395.94 and 25395.96.

5.7.9 Level of Significance After Mitigation

Impacts would be less than significant.

5.7.10 References

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- . 2018, November 26. Work Plan: Environmental Assessment Southern California Edison Substation Aqua Mansa Commerce Park.
- . 2018, May 24. Updated Phase I Environmental Site Assessment for Rubidoux / Agua Mansa Open Space.
- . 2019, January 7. Site Assessment Work Plan Agua Mansa Recreational Park/Open Space.
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- Southern California Association of Governments (SCAG). 2016. “Current Context: Demographics and Growth Forecast.” Appendix in 2016-2040 Regional Transportation Plan/ Sustainable Communities Strategy.
http://scagrtpscscs.net/Documents/2016/final/f2016RTPSCS_DemographicsGrowthForecast.pdf.
- US Environmental Protection Agency, Office of Solid Waste (USEPA). 1998. Draft Risk Assessment for Cement Kiln Dust Used as an Agricultural Soil Amendment. Prepared by Center for Environmental Analysis. US EPA Archive Document.
<https://archive.epa.gov/epawaste/nonhaz/industrial/special/web/pdf/ckdp0103.pdf>.

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