

5. Environmental Analysis

5.7 HAZARDS AND HAZARDOUS MATERIALS

This section evaluates the potential impacts of the Proposed Project 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 analysis in this section is based, in part, upon the following source(s):

- *Closure Activities and Subsurface Investigation Results Former Meggitt (Orange County) Inc., Endevco Facility 30700 Rancho Viejo Road, San Juan Capistrano, California*, Ramboll Environ, December 15, 2015. (Appendix Fa)
- *Soil and Soil Vapor Investigation Report, 30700 Rancho Viejo Road, San Juan Capistrano, California*. Ramboll US Corporation. February 7, 2018. (Appendix Fb)
- *Revised Supplemental Soil Vapor Sampling, Regional Groundwater Evaluation and Corrective Action Recommendation Report, 30700 Rancho Viejo Road, San Juan Capistrano, California*. Ramboll US Corporation. August 2020. (Appendix Fc)

Complete copies of these studies are included in Appendix F, Environmental Site Assessments (Fa to Fc) to this Draft EIR.

5.7.1 Environmental Setting

5.7.1.1 REGULATORY BACKGROUND

Hazardous materials refer generally to hazardous substances that exhibit corrosive, poisonous, flammable, and/or reactive properties and have the potential to harm human health and/or the environment. Hazardous materials are used in products (household cleaners, industrial solvents, paint, pesticides, etc.) and in the manufacturing of products (e.g., electronics, newspapers, plastic products). Hazardous materials can include petroleum, natural gas, synthetic gas, acutely toxic chemicals, and other toxic chemicals that are used in agriculture, commercial, and industrial uses; businesses; hospitals; and households. Accidental releases of hazardous materials can occur from a variety of causes, including highway incidents, warehouse fires, train derailments, shipping accidents, and industrial incidents.

Responsible agencies that regulate hazardous materials and waste include federal and state agencies.

United States Environmental Protection Agency. The United States Environmental Protection Agency (EPA) is the primary federal agency that regulates hazardous materials and waste. In general, the EPA works to develop and enforce regulations that implement environmental laws enacted by Congress. The agency is responsible for researching and setting national standards for a variety of environmental programs and delegates to states and tribes the responsibility for issuing permits and for monitoring and enforcing compliance. EPA programs promote handling hazardous wastes safely, cleaning up contaminated land, and reducing trash. Under the authority of the Resource Conservation and Recovery Act (RCRA) and in cooperation with state and tribal partners, the EPA's Waste Management Division manages a hazardous waste

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program, an underground storage tank program, and a solid waste program that includes development of waste reduction strategies such as recycling.

California Environmental Protection Agency. California Environmental Protection Agency (CalEPA) was created in 1991 by Governor's Executive Order. Under the CalEPA umbrella are six boards and departments—Air Resources Board, Department of Resources Recycling and Recovery, Department of Pesticides Regulations, Department of Toxic Substances Control (DTSC), Office of Environmental Health Hazard Assessment, and State Water Resources Control Board—to create a cabinet-level voice for the protection of human health and the environment and to ensure the coordinated deployment of state resources. CalEPA oversees the unified hazardous waste and hazardous materials management regulatory program.

California Department of Toxic Substances Control. DTSC is a department of CalEPA, which authorizes DTSC to administer the RCRA program in California to protect people from exposure to hazardous wastes. The department regulates hazardous waste, cleans up existing contamination, and implements regulations to control and reduce the hazardous waste produced in California, primarily under the authority of RCRA and in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (Title 22, California Code of Regulations [CCR], Divisions 4 and 4.5). Permitting, inspection, compliance, and corrective action programs ensure that people who manage hazardous waste follow state and federal requirements and other laws that affect hazardous waste specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

Federal and state statutes as well as local ordinances and plans regulate the use, storage, and transportation of hazardous materials and hazardous waste. These regulations can reduce the danger hazardous substances may pose to people and businesses under normal daily circumstances and as a result of emergencies and disasters.

Federal Safety and Health Regulations for Construction

Title 26, Part 1926 of the Code of Federal Regulations (CFR) establishes standards for general safety and health provisions, occupational health and environmental controls, demolition, toxic and hazardous substances, and other aspects of construction work. For example, it establishes standards for general safety and health, such as development and maintenance of an effective fire protection and prevention program at the job site. It also establishes standards for occupational health and environmental controls, such as for exposure to lead and asbestos.

State

California Accidental Release Prevention Program

California Accidental Release Prevention Program (CalARP) includes the Federal Accidental Release Prevention Program, with certain additions specific to California pursuant to Article 2, Chapter 6.95, of the Health and Safety Code. The purpose of the CalARP Program is to prevent the accidental releases of regulated substances. Businesses using regulated substances exceeding a threshold quantity are evaluated under this program to determine the potential for and impacts of accidental releases. Depending on the potential hazards, business owners may be required to develop and submit a risk management plan.

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Business Plan Act

In recognition of the dangers associated with keeping hazardous substances, the state legislature has enacted several laws regulating the use and transport of identified hazardous materials. California's Hazardous Materials Release Response Plans and Inventory Law, sometimes called the "Business Plan Act," aims to minimize the potential for accidents involving hazardous materials and to facilitate an appropriate response to possible hazardous materials emergencies. The law requires businesses that use hazardous materials to provide inventories of those materials to designated emergency response agencies, to illustrate on a diagram where the materials are stored on-site, to prepare an emergency response plan, and to train employees to use the materials safely.

Hazardous Materials Transportation

Section 31303 of the California Vehicle Code and US Department of Transportation regulations state that hazardous materials being directly transported from one location to another must use routes with the least overall travel time (e.g., major roadways/highways instead of local streets). The California Highway Patrol and California Department of Transportation are the enforcement agencies for hazardous materials transportation regulations. Transporters of hazardous materials and waste are responsible for complying with all applicable packaging, labeling, and shipping regulations.

Worker and Workplace Hazardous Materials Safety

Occupational safety standards in federal and state laws minimize worker safety risks from both physical and chemical hazards in the workplace. California Division of Occupational Safety and Health (Cal/OSHA) is responsible for developing and enforcing workplace safety standards and ensuring worker safety in the handling and use of hazardous materials. Among other requirements, Cal/OSHA obligates many businesses to prepare Injury and Illness Prevention Plans and Chemical Hygiene Plans. The Hazard Communication Standard requires that workers be informed of the hazards associated with the materials they handle. For example, manufacturers must appropriately label containers, Material Safety Data Sheets must be available in the workplace, and employers must properly train workers.

Hazardous Materials in Structures

Asbestos is regulated as a hazardous air pollutant under the Clean Air Act (CAA) and is also regulated as a potential worker safety hazard under the authority of the federal Occupational Safety and Health Administration. Cal/OSHA considers asbestos-containing building material a hazardous substance when a bulk sample contains more than 0.1 percent asbestos by weight and requires a qualified contractor licensed to handle asbestos. Any activity that involves cutting, grinding, or drilling during building renovation or demolition or relocation of underground utilities could release friable asbestos fibers unless proper precautions are taken.

Lead is regulated as a hazardous material, and inorganic lead is regulated as a toxic air contaminant. Lead-containing paints, according to Cal/OSHA, are defined as paints reported with any detectable levels of lead by paint chip analysis (8 CCR § 1532.1(d)). When disturbed for construction purposes, these surfaces are subject to Cal/OSHA exposure assessment requirements.

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Several regulations and guidelines pertain to abatement of and protection from exposure to asbestos-containing materials (ACM) and lead-based paint:

- Lead-based paint
 - 8 CCR Subchapter 4 (Construction Safety Orders), Section 1532.1
 - Title 29 CFR 1926, Subpart D
- Asbestos
 - 8 CCR Subchapter 4, Section 1529
 - 29 CFR 1926, Subpart Z
 - 40 CFR 61, Subpart M

These rules and regulations provide exposure limits, exposure monitoring, respiratory protection, and good working practice for workers exposed to lead and ACMs. In California, ACM and lead-based-paint abatement must be performed and monitored by contractors with appropriate certification from the California Department of Health Services. California Health and Safety Code (HSC) Sections 17920.10 and 105255 require lead to be contained during demolition activities.

Polychlorinated biphenyls (PCBs) were commonly used in the small capacitor in fluorescent light ballasts through 1979. PCB regulations are included in 40 CFR 761, which requires the material to be incinerated. The entire lighting fixture does not need special handling and disposal as long as the ballast (electrical box) is not leaking. The nonleaking ballasts can be removed and recycled or disposed of properly.

Hazardous Waste Control

HSC, Division 20, Chapter 6.5, and 22 CCR, Division 4.5, Environmental Health Standards for the Management of Hazardous Waste, address how hazardous waste must be handled, stored, transported, treated, and disposed. They provide an effective process for hazardous waste management planning at the local level to ensure adequate handling, storing, transporting, treating, and disposing of hazardous materials.

Regional

Asbestos Emissions from Demolition/Renovation Activities

South Coast Air Quality Management District (SCAQMD) Rule 1403, Asbestos Emissions from Demolition/Renovation Activities, provides requirements for limiting asbestos emissions from building demolition and renovation activities.

Local Hazard Mitigation Plan

The Orange County Hazard Mitigation Plan (HMP) was approved by the Federal Emergency Management Agency in November 2015. The HMP is a multi-jurisdiction plan developed jointly between the County of Orange; cities in Orange County; and the Orange County Fire Authority (OCFA), a joint powers authority. The HMP focuses on mitigating all natural hazards impacting unincorporated areas of the county as well as County- and OCFA-owned facilities. The City of San Juan Capistrano is a member of the Orange County Emergency

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Management Organization, which is a standing subcommittee of the Orange County Operational Executive Board, tasked with developing and reviewing plans across the county to ensure consistency.

Local

City of San Juan Capistrano Municipal Code

Municipal Code, Title 4, Chapter 1, Emergency Preparedness, provides for the preparation and carrying out of plans for the protection of persons and property in the event of an emergency, the direction of the Emergency Organization, and the coordination of emergency functions.

City of San Juan Capistrano General Plan

The General Plan Safety Element includes goals and policies aimed at protecting the community from natural and human-related hazards. Applicable policies include:

Safety Goal 2. Protect the community from hazards related to air pollution, nuclear power production, hazardous materials, and ground transportation.

- **Policy 2.3.** Coordinate with responsible federal, state, and county agencies to minimize the risk to the community from the use and transportation of hazardous materials through the City.
- **Policy 2.4.** Reduce the per capita production of household hazardous waste in San Juan Capistrano in concert with the County of Orange plans for reducing hazardous waste.

5.7.1.2 EXISTING CONDITIONS

The 15.3-acre parcel (APN 650-111-15) of the Project Site is developed with an approximately 125,000-square-foot industrial building, formerly operated as a measurement instrumentation manufacturing facility by Meggitt. The single-story building housed production, storage, and office operations. Other smaller structures on the site consisted of a hazardous materials storage structure and an outdoor storage area.

The southern portion of the main building and associated parking area were developed in 1973 by Endevco for measurement instrument manufacturing. Before that, the Project Site consisted of undeveloped land and agricultural uses (orchards) from at least the 1930s. In 1982 the northern portion of the main building was constructed, and Meggitt purchased Endevco in 1992. In 2010 the operating name of the company was changed from Endevco to Meggitt.

Meggitt vacated the site in September 2013, and the Project Site has remained vacant since then. The elevation of the main parcel ranges from approximately 319 feet near the eastern boundary to 228 feet near the western parcel boundary. The 15.3-acre parcel is accessed from Rancho Viejo Road along the western boundary and Malispina Road along the northern boundary. The access driveways are surfaced with asphalt and lead to asphalt-paved parking areas in the northern, eastern, and western parts of the parcel. The area surrounding the main building is landscaped with ornamental grass and trees and a hillside with native vegetation is located on the eastern portion of the site. There are no surface water bodies on-site.

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The Project Site is underlain by well-bedded siltstone, silty sandstone, and silty claystone of the Capistrano Formation. In addition, recompaction of native soils and imported fill materials underlies the developed portion of the Project Site. The soils used in the compacted fill consisted of clay, clayey sand, clayey silt, and clayey siltstones. Soil characteristics include slightly moist to moist, predominantly fine-grained soils with minor lenses of sand and gravel from the surface to approximately 17 feet below ground surface (bgs). The fine-grained soil is described primarily as sandy silt, silt, clayey silt, silty clay, and clay (Ramboll 2015).

Closure Activities and Subsurface Investigation Results (Ramboll Environ December 2015)

Hazardous Waste Tank System Closure

Prior to closing the manufacturing operation, various operational closure activities were performed at the Project Site. All processing equipment was cleaned and removed, and hazardous materials and wastes were removed. Following completion of closure activities, a “Hazardous Waste Tank System Closure Certification Report” (July 2015) was prepared by AECOM, a consultant retained by Meggitt to document the completion of closure activities for the Permit by Rule (PBR) Hazardous Waste Tank System. The closure report indicated that hazardous wastes generated in manufacturing areas were treated by the tank system under a Fixed Treatment Unit PBR tiered permit issued by the Orange County Health Care Agency (OCHCA). The system was located primarily in the wastewater room on the eastern side of the facility and consisted of a neutralization tank, a holding tank, and an evaporator. In this closure report, AECOM certified completion of required closure activities, and the closure report was submitted to the DTSC and the Environmental Health Division of OCHCA, a local certified unified permitting agency. However, DTSC requested additional investigation before the closure is granted.

Phase I ESA (Ramboll Environ April 2013)

A Phase I Environmental Site Assessment was prepared for the Project Site in April 2013 (2013 Phase I). The 2013 Phase I indicated that Meggitt manufactured and assembled dynamic measurement instrumentation for vibration, shock, and pressure measurements at the site during its occupancy. The site survey conducted as part of the 2013 Phase I identified one three-stage subsurface clarifier and one four-stage subsurface clarifier along the eastern exterior of the main building. The clarifiers were used to remove solids from processed wastewater prior to discharge to the sanitary sewer. Several process sumps were used to convey wastewater to the wastewater neutralization system and the wastewater evaporator (PBR unit, discussed above).

Other observations included plugged floor drains, two sumps in the hazardous material/hazardous waste structure along the eastern exterior of the site, and air compressor condensate that had been discharged to the ground surface in an adjacent planter. Facility personnel also reported that two vapor degreasers, which formerly contained 1,1,1-TCA, were operated in the production area. Based on these findings, a subsurface investigation was recommended by the 2013 Phase I.

Phase II Subsurface Investigation and Excavation Report (Ramboll Environ October 2013)

The 2013 Phase II subsurface investigation addressed the clarifiers, the wastewater neutralization and evaporator area (the PBR unit discussed above), the sewer line, the air compressor discharge area, the former

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vapor degreasers, the outdoor dust collection area, the outdoor storage area, and the outdoor hazardous materials/hazardous waste storage area that were identified in the 2013 Phase I.

The 2013 Phase II investigation collected soil gas samples from 16 soil vapor probes (at 5 feet bgs), soil samples from 12 soil borings, and 1 fluid sample from each of the 2 clarifiers. Soil gas samples were analyzed for volatile organic compounds (VOCs). Soil samples were analyzed for a variety of constituents depending upon the location, including risk based target concentration (RBTC) (“TPH, full range”), metals, and pH. The two fluid samples from the clarifier were also analyzed for VOCs, TPH-full range, metals, and pH. The results found slightly elevated concentrations of lead and TPH but at concentrations below regulatory thresholds at two localized areas in soil, and soils from these areas were excavated as a conservative measure. Soils were also excavated from the air compressor area. Post-excavation soil sampling analytical results indicated that concentrations of lead and TPH did not exceed the screening threshold of 80 mg/kg and OCHCA screening threshold, respectively.

The 2013 Phase II compared concentrations of compounds detected in soil vapor and soil to published regulatory guidance or criteria:

- VOCs in soil vapor samples were compared to calculated DTSC-modified USEPA Regional Screening Levels (RSLs) or USEPA RSLs for residential or commercial air using a default attenuation factor of 0.001 for future residential or existing commercial buildings.
- TPH in soil samples were compared to OCHCA screening thresholds.
- Metals in soil samples were compared to published DTSC-modified USEPA RSLs or USEPA RSLs for residential and commercial/industrial use properties.
- There are no established regulatory thresholds for pH. Most pH values were relatively neutral (6.16 to 7.87), with the exception of pH values measured in SB-8 (4.42 and 4.11), which were more towards the acidic end of the pH range. However, this area with lower pH value than the rest of the Project Site was small and no chemicals of concern were noted in that area that would be impacted by decreases in pH.

Although a number of VOCs were detected in some of the soil vapor samples at low concentrations, none of the detected VOC concentrations exceeded the applicable calculated DTSC-modified USEPA RSLs or USEPA RSLs, with the exception of chloroform in one sample. In that sample, the detected concentration of chloroform exceeded the calculated DTSC-modified USEPA RSL or USEPA RSL for chloroform for a future residential scenario but was below the calculated DTSC-modified USEPA RSL or USEPA RSL for chloroform in a commercial scenario.

Following limited soil removal activities in the two areas where slightly elevated concentrations of lead and TPH were detected in soil, described above, TPH concentrations in soil did not exceed OCHCA screening thresholds, and lead concentrations did not exceed the US EPA RSL threshold of 80 mg/kg for residential property, which is based on a DTSC model that is protective of exposure to children. This means that the soil is considered safe in accordance with residential standard for lead that have been adopted to ensure the protection of human health.

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Following limited soil removal activities, arsenic was the only metal that was detected in soil at concentrations above its respective RSL. Arsenic was reported at concentrations ranging from 1.4 mg/kg to 9.2 mg/kg in samples collected across the site. Arsenic is a naturally occurring metal in soil and tends to be present in native California soils at concentrations that exceed applicable regulatory thresholds. Since reported concentrations of arsenic onsite is within the average background level for Southern California (up to 12 mg/kg), it indicates that no release onsite has occurred. Therefore, there are no anticipated human health impacts from the presence of arsenic onsite. The 2013 Phase II investigation reviewed three sources to determine the range of arsenic concentrations in California soils. One source detected the average concentration of arsenic in California soils to be 3.5 mg/kg—with a minimum detection of 0.6 mg/kg and a maximum detection of 11.0 mg/kg in the samples collected for this study. The second source detected naturally occurring arsenic in California soils at concentrations ranging from 0.3 mg/kg to 69 mg/kg. The third source, a study specific to Southern California soils and based on statistical analysis of a large data set from school sites in Los Angeles County, gave an upper-bound background arsenic concentration of 12 mg/kg. The 2013 Phase II investigation determined that detected concentrations of arsenic are consistent throughout the soil throughout the site. The presence of arsenic in the soil samples is not of significant environmental concern at the site, because detected concentrations were within typical background concentrations of arsenic in native California soils.

Conclusions

The 2015 Closure Activities and Subsurface Investigation Results concluded that although historical operations conducted by Meggitt during its tenure at the Project Site may have resulted in the measured detections of VOCs, TPH, and metals in the soil vapor and soil samples, impacts are less than significant and do not reflect any risks to human health. All detected concentrations of VOCs, TPH, and metals were below applicable regulatory thresholds, with the exceptions of 1) chloroform in soil gas, which was detected in one sample at a concentration that exceeded the applicable residential land use threshold by 0.02 micrograms/liter ($\mu\text{g}/\text{l}$) but was below the applicable commercial/industrial land use threshold, and 2) arsenic in soil, which was detected at concentrations within typical background concentrations of arsenic in native California soils. Chloroform detection was later found not to be of a concern by DTSC as it was not detected in any other investigations; therefore, it was considered an anomalous. In addition, in the two areas of the Project Site where slightly elevated concentrations of lead and TPH were detected in soil, soils were excavated as a conservative measure and post-excavation soil samples indicated that concentrations of lead and TPH did not exceed the screening threshold of 80 mg/kg and OCHCA screening threshold, respectively, and do not cause a risk to human health.

Based on the findings of the Closure Report, the 2013 Phase I, and the results of the subsurface investigation, closure of the PBR unit was recommended, indicating that impacts to the subsurface at the site were not at concentrations that would require further investigation and/or remediation. However, following the review of the Closure Report, DTSC identified data gaps and requested additional investigation of the site in 2017.

Soil and Soil Vapor Investigation Report (Ramboll February 7, 2018)

A supplemental soil and soil vapor investigation were performed in 2017 at the request of DTSC to evaluate areas/depths that had not been addressed during the 2013 subsurface investigation. The 2017 investigation focused on the areas most likely to be impacted by previous site operations (i.e., adjacent to the sewer line,

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clarifier, former neutralization tank area, and wastewater treatment room) indicated that detected chemicals of concern (COCs) from soils samples and soil vapor samples were below their respective unrestricted and commercial/industrial default screening levels, except for the soil vapor samples from the area adjacent to the wastewater treatment room. All VOCs were detected below their respective commercial/industrial threshold at 5-foot from the area adjacent to the wastewater treatment room except for 1,4-dioxane concentrations that showed 1.69 µg/l in the primary sample, exceeding its regulatory threshold of 1.6 µg/l. However, in the duplicate sample, the value was 1.13 µg/l, below its regulatory threshold. Additionally, 1,4-dioxane concentrations decreased with increasing depth, showing 0.762 µg/l at 15 feet bgs. Therefore, it was concluded that unrestricted default screening levels (compared to a screening value of) 1,4-dioxane is localized to shallow soils and does not represent an environmental concern. The tetrachloroethylene (PCE) concentration at 15 feet bgs was more than two times the PCE screening level 5 feet bgs. Therefore, a site-specific modeling was conducted to develop a risk based target concentration (RBTC) at 15 feet and found that the detection is limited to very localized area and the PCE detections correspond to the lower end of the risk management range. The 2018 Soil and Soil Vapor Report concluded that the Project Site is suitable for commercial/industrial use and requested regulatory closure to DTSC. However, while DTSC concurred that vapor intrusion was not a concern at the Project Site, they requested lateral and vertical delineation of the soil vapor in the wastewater treatment room because it is unknown if PCE impacts continue with increasing depth or extend to soil and/or groundwater.

Additional soil investigations were conducted on May 22, 2018, and May 24, 2018, where two step-out borings were collected; one inside the wastewater treatment room and one just outside the wastewater treatment room. The result indicated that all detected VOCs were below their respective commercial/industrial screening levels at 5 feet. PCE detections at 5 feet exceeded the 5-foot unrestricted default screening level but at 15 and 24 feet were below the calculated site-specific RBTC. Considering the limited extent of PCE impacts, the decreasing PCE concentrations with increasing depth at step-out soil sample outside of the wastewater treatment room, the continuous fine-grained lithology underlying the Project Site, the fact that the Project Site is mapped as not being within the designated groundwater basin, and groundwater not being encountered at 100 feet bgs, the report concluded that the groundwater is unlikely to have been impacted due to historical site activities. Therefore, a site closure request for commercial/industrial closure was submitted to DTSC in November 2018.

Phase II Screening Investigation (GSI Environmental March 2019)

2019 Phase II investigation activities were conducted between January 21 and February 5, 2019. To address DTSC concerns for groundwater quality and lateral and vertical soil and soil vapor characterization, three exterior groundwater monitoring wells with soil vapor probes were installed at five depths (10, 30, 50, 70, and 100 feet bgs). Groundwater was encountered at 40 and 35 feet bgs at borings E-4 and E-5, respectively, southwest of the building. In addition, seven interior soil borings with soil vapor probes were installed at 6 and 15 feet bgs inside the main building.

Twelve soil borings (seven interior and five exterior) were drilled to assess the potential presence of contaminants at the Site. Interior soil samples were collected from approximately 6 and/or 15 feet bgs. Exterior soil samples were collected from approximately 10, 30, 50, 70, 100, and/or 140 feet bgs. Additional samples

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were collected at exterior location E-1 at approximately 160, 180, and 200 feet bgs. In total, 37 soil samples were screened for the presence of VOCs.

Soil vapor samples were collected from 10 borings. Soil vapor probes at interior locations were installed at approximately 6 and/or 15 feet bgs. Soil vapor probes at exterior locations E-1 and E-2 were installed approximately 10, 30, 50, 70, 100, and/or 140 feet bgs and at exterior location E-4 at 5, 10, 13 feet bgs. Samples were analyzed for VOCs.

Groundwater screening samples were collected from two locations (E-4 and E-5) at depths between 30 and 35 feet bgs. A temporary well was constructed to conduct the sampling.

Investigation Results

Soil lithology and soil and soil vapor analytical results were compared to risk-based screening levels, including CalEPA, DTSC-modified screening levels, US EPA RSLs, and California State Water Resources Control Board maximum contamination levels (MCL).

Observations of lithology documented during drilling indicates that the Project Site is generally underlain by silt and lean clay with occasional units containing larger percentages of fine sand. Perched groundwater was encountered at approximately 40 and 35 feet bgs at borings E-4 and E-5, respectively.

Soil Analytical Results

Several VOCs were detected above their respective laboratory reporting limits but below their respective residential screening levels—1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), Freon 12, naphthalene, tetrachloroethene (PCE), 1,1,1-trichloroethane (1,1,1-TCA), vinyl chloride (VC), benzene, toluene, ethylbenzene, and xylene (BTEX). All other constituents were below their respective laboratory reporting limits.

At boring E-2, VC was reported at 15.7 micrograms per kilogram (μ /kg) at 70 feet bgs, that is, above its residential screening level; however, VC concentrations from the samples above and below this depth were below laboratory reporting limits. VC was only detected in soil sample collected from 70 feet bgs and the samples collected closer to the surface were nondetectable indicating that VC is not a vapor intrusion risk. Additionally, VC was nondetectable in the soil vapor samples.

Benzene concentrations at boring E-1 increased with depth; however, all reported benzene concentrations were below residential screening levels.

Soil Vapor Analytical Results

VOCs detected above laboratory reporting limits in soil vapor include benzene, 1,1-DCA, 1,1-DCE, and 1,1,1-TCA. The analytical results of soil vapor samples were compared to risk-based screening levels to evaluate the extent of potential impacts at the Project Site. US EPA RSLs and DTSC-modified screening levels for soil vapor were selected in accordance with recommendations from DTSC human health risk assessment (HHRA) Note 3. No constituent was detected above its respective residential soil vapor screening level.

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Groundwater Analytical Results

No VOCs were reported above laboratory reporting limits in groundwater except toluene at 1.1 μ /liter. No constituent was detected above its federal or California MCL for drinking water standards.

Conclusion

Based on the results of the soil and soil vapor sampling, the 2019 Phase II investigation concluded that the Project Site meets residential screening criteria for soil and soil vapor. The 2019 Phase II investigation concluded that estimated health risks were acceptable based on the levels detected at the site.

The groundwater samples collected at the Project Site were from a perched zone. GSI Environmental was unable to collect groundwater samples from regional aquifer, which is likely more than 200 feet bgs. There is no evidence that regional groundwater has been impacted and therefore no impact for future residential use.

Revised Supplemental Soil Vapor Sampling, Regional Groundwater Evaluation, and Corrective Action Recommendation Report (Ramboll US Corporation August 2020)

The result of the GSI's 2019 Phase II investigation described above was submitted to DTSC by Ramboll in a May 2019 report indicating that VOCs present in soil, soil vapor, and groundwater generally were detected at concentrations below unrestricted default screening levels and/or drinking water standards. The May 2019 report indicated that only COC in soil vapor that exceeded unrestricted default screening levels was PCE in a very localized area near the wastewater treatment room, and these PCE detections correspond to the lower end of the risk management range. Therefore, an unrestricted regulatory closure of the Project Site from DTSC was requested by Ramboll.

After its review of the May 2019 report, DTSC requested supplemental soil vapor sampling adjacent to most historical boring locations to confirm the historical soil vapor sampling results obtained in 2013, 2017, 2018, and 2019, and a regional groundwater evaluation. In response to DTSC's request, Ramboll submitted "Proposed Soil Vapor Sampling and Regional Groundwater Evaluation Work Plan" on October 2, 2019 and DTSC approved it in a letter dated October 8, 2019.

The scope of work described in the October 2019 Work Plan was conducted in November 2019, and the results are included in the Supplemental Soil Vapor Sampling, Regional Groundwater Evaluation and Closure Request report dated February 2020 (February 2020 Closure Report). The February 2020 Closure Report was submitted to DTSC and DTSC provided comments to the February 2020 Closure Report in March 2020. A Revised Supplemental Soil Vapor Sampling, Regional Groundwater Evaluation and Corrective Action Recommendation Report was submitted to DTSC in August 2020 (August 2020 Corrective Action Report) in response to the DTSC's comments in March and several meetings that ensued since the March comments. In addition to the results of previous investigation conducted at the Project Site, the August 2020 Corrective Action Report included screening human health risk assessment (SHHRA) for the wastewater treatment area using three attenuation factors (AF of 0.0005, 0.001 and 0.03) and a site-specific human health risk assessment (HHRA) for the Project Site.

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Human Health Risk Assessment

The soil vapor data from the previous 2013, 2017, 2018, and 2019 investigations were preliminarily screened against the USEP/DTSC Human and Ecological Risk Office (HERO) unrestricted default screening levels using the 0.001 AF. These screening levels are concentrations of chemicals in indoor air of a residence that the DTSC and USEPA consider to be below default screening levels of concern for risks to human health over a lifetime. The threshold of concern used to develop the screening levels are an excess lifetime cancer risk of one in a million (1E-06) and a hazard quotient (HQ) of 1.0 for non-cancer health effects. The National Contingency Plan (NCP) (40 Code of Federal Regulations [CFR] §300) is commonly cited as the basis for target risk and hazard level. According to the NCP, lifetime incremental cancer risks posted by a site should not exceed one in a million (1E-06) to one hundred in a million (1E-04). Therefore, the lifetime cancer risk of one in a million is considered the low or conservative end of the target risk range.

Per DTSC comments, a SHHRA was conducted to evaluate potential vapor intrusion at the wastewater treatment area. DTSC requested calculation of the total risk and non-risk cancer hazard based on DTSC and USEPA-default attenuation factors appropriate for planned site use, using both two empirical AFs, 0.001 and 0.03 for future resident. In addition, the total cancer risk and non-cancer hazard for future commercial use using the 0.0005 AF was calculated for comparison. The results of the calculations are included in Appendix F to the August 2020 Corrective Action Report (Appendix Fc to the DEIR). Given the site-wide consistent fine-grained lithology, a site-specific HHRA rather than using empirical AFs was deemed appropriate. These risk calculations were conducted using the 2017 USEPA Johnson and Ettinger Model (J&E Model) using DTSC's default soil properties for clay. 2013, 2017, 2018, and 2019 soil vapor results were compared to these site-specific, RBTCs calculated for 5, 10, 15, and 2 feet bgs for both future commercial and future residential uses. The results of the maximum estimated cancer risk and hazard index (HI) results are summarized in Table 5.7-1.

Table 5.7-1 Estimated Health Risk and Hazard Index for Unrestricted and Commercial Scenarios

Residential/Unrestricted Scenarios	Cancer Risk	HI	Commercial Scenarios	Cancer Risk	HI
Site-specific AF, 5 ft bgs	4E-06	0.07	Site-specific AF, 5 ft bgs	3E-07	0.005
Site-specific AF, 10 ft bgs	2E-07	0.006	Site-specific AF, 10 ft bgs	2E-08	0.0004
Site-specific AF, 15 ft bgs	5E-06	0.05	Site-specific AF, 15 ft bgs	1E-07	0.002
Site-specific AF, 25 ft bgs	2E-06	0.02	Site-specific AF, 25 ft bgs	9E-08	0.001
AF = 0.001, 5 ft bgs	6E-06	0.1	AF = 0.001, 5 ft bgs	7E-07	0.01
AF = 0.001, 5 – 25 ft bgs	3E-05	0.3	AF = 0.001, 5 – 25 ft bgs	2E-06	0.02

As shown in Table 5.7-1, based on the site-specific HHRA, the estimated cumulative cancer risks for the vapor intrusion pathway assuming site-specific unrestricted use for 5, 10, 15, and 25 ft bgs ranges from 5E-06 to 2E-07, and the AF of 0.001 at 5 ft bgs is 06E-06. These values are at the lower end of the risk per the NCP 40 CFR Section 300. The estimated cumulative HIs are below the non-cancer threshold of one under all scenarios.

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Groundwater

Regional groundwater was not encountered at the Project Site to the maximum depth explored of 201.5 feet bgs. An area of perched groundwater was encountered downgradient (south) of the building and the only VOC detected in perched groundwater was a trace concentration of toluene in boring E-4. Toluene was not detected in soil vapor samples obtained at E-4 at 5,10, or 13 feet bgs. No VOCs were detected in groundwater obtained from boring E-5, downgradient of boring E-4, indicating that either the occurrence of toluene at E-4 is limited in extent or anomalous.

Conclusion

The August 2020 Corrective Action Report demonstrated that results of the previous subsurface investigations conducted in 2013, 2017, 2018, and 2019 confirm that soil generally is not impacted at concentrations above applicable unrestricted DTSC-modified and/or USEPA RSLs. Of the VOCs detected in soil vapor, PCE was detected at the highest concentrations and these higher concentrations were localized to a small area in the wastewater treatment room. The soil vapor results indicate that the risk associated with the wastewater treatment room and across the site correspond to a lifetime incremental cancer risk of four in a million (4E-06) at 5 ft bgs and six in a million (6E-06) using an AF of 0.001 at 5 ft (see Table 5.7-1), and a HI of less than 1, which is considered in the lower end of target risk and hazard level.

The only VOC detected from groundwater was toluene from a localized perched groundwater, and it did not exceed its California MCL. As perched groundwater is not impacted, and the Capistrano Formation underlying the site does not readily store or transmit groundwater, and there is no evidence regional groundwater underlies the site, the groundwater pathway does not present an environmental concern.

Therefore, the August 2020 Corrective Action Report concluded that with the recommended Land Use Covenant (LUC), significant environmental concern relative to the planned residential development would be reduced to a manageable level. DTSC is currently reviewing the report and the case closure status is still pending.

Department of Toxic Substances Control EnviroStor Database

The California Department of Toxic Substances Control (DTSC) Envirostor Database search lists the Project Site with an active clean-up status (DTSC 2020). The DTSC lists completed activities for the Project Site that show Supplemental Site Work Plan approval letter dated October 8, 2019 from DTSC as the latest activity and it shows a Supplemental Site Investigation Report as a currently scheduled activity with a due date of November 27, 2020. However, a Supplemental Soil Vapor Sampling, Regional Groundwater Evaluation and Closure Request, dated February 2020, as described above, has been prepared since the October 8, 2019 Work Plan approval letter from DTSC. The February 2020 investigation has not been uploaded to EnviroStor database and DTSC has not closed the site pending results of the February 2020 report.

Emergency Response

The City of San Juan Capistrano maintains a comprehensive Emergency Management Program to respond to major emergencies (San Juan Capistrano 2020a). Rancho Viejo Road is identified in the City's Emergency Management Program as an evacuation route (San Juan Capistrano 2020b).

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5.7.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

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

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold H-1
- Threshold H-5
- Threshold H-7

These impacts will not be addressed in the following analysis.

5.7.3 Plans, Programs, and Policies

- PPP H-1 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 US 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.

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- PPP H-2 Any project-related hazardous waste generation, transportation, treatment, storage, and disposal will be conducted in compliance with Subtitle C of the Resource Conservation and Recovery Act (Code of Federal Regulations, Title 40, Part 263), including the management of nonhazardous solid wastes. The Proposed Project will be designed and constructed in accordance with the regulations of the Orange County Environmental Health Department, which serves as the designated Certified Unified Program Agency 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, (4) Aboveground Storage Tank Program, and (5) Underground Storage Tank Program.
- PPP H-3 A comprehensive asbestos and lead-based paint survey shall be conducted at the Project Site. Any project-related demolition activities that have the potential to expose construction workers and/or the public to asbestos-containing materials or lead-based paint 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.)
 - Cal OSHA Administration regulations (8 CCR Section 1529 [Asbestos] and Section 1532.1 [Lead])
 - Code of Federal Regulations (Title 40, Part 61 [asbestos], Title 40, Part 763 [asbestos], Title 40, Part 745 (lead), and Title 29, Part 1926 [asbestos and lead])
 - EPA's Lead Renovation, Repair and Painting Program Rules and Residential Lead-Based Paint Disclosure Program
 - Sections 402/404 and 403, and Title IV of the Toxic Substances Control Act
- PPP H-4 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 H-5 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).

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5.7.4 Environmental Impacts

5.7.4.1 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.7-1: The Proposed Project could create a significant hazard to environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment; but would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substance, or waste within one-quarter mile of an existing or proposed school. [Thresholds H-2 and H-3]

By the time that Meggitt vacated the Project Site, all processing equipment was cleaned and removed, and hazardous materials and wastes were removed. Since completion of closure activities, a number of soil, soil vapor, and groundwater investigations were completed and reports were prepared as summarized in Section 5.7.1.2 *Existing Conditions*.

The 2013 Phase I ESA found that the historical operations at the Project Site and the potentially impacted soil adjacent to an air compressor enclosure represented recognized environmental conditions (RECs). A subsurface investigation at the Project Site was recommended and completed in 2013. The 2015 report by Ramboll Environ summarizes the findings and concludes that impacts do not appear to be significant. All detected concentrations of VOCs, TPH, and metals were below applicable regulatory thresholds, with the exceptions of 1) chloroform in soil gas, which was detected in one sample at a concentration that exceeded the applicable residential land use threshold but was below the applicable commercial/industrial land use threshold, and 2) arsenic in soil, which was detected at concentrations within typical background concentrations of arsenic in native California soils. In addition, in the two areas of the site where slightly elevated concentrations of lead and TPH were detected in soil, soils were excavated as a conservative measure. Following limited soil removal activities in the two areas where slightly elevated concentrations of lead and TPH were detected in soil, TPH concentrations in soil did not exceed OCHCA screening thresholds, and lead concentrations did not exceed the US EPA RSL threshold of 80 mg/kg for residential property. Based on the findings of the closure report, the Phase I ESA, and the results of the subsurface investigation, closure of the PBR unit has been completed, and impacts to the subsurface at the site were not at concentrations that would require further investigation and/or remediation.

The 2019 Phase II tested for VOCs in soil, soil vapor, and groundwater. The 2019 Phase II investigation concluded that the Project Site meets residential screening criteria for soil and soil vapor. With regard to groundwater, no constituent was detected above its federal or California MCL for drinking water standards.

The latest report “Revised Supplemental Soil Vapor Sampling, Regional Groundwater Evaluation and Corrective Action Recommendation Report” was completed in August 2020 and submitted to DTSC. The August 2020 Corrective Action Report incorporated the previous 2013, 2017, 2018, and 2019 subsurface investigations performed at the Project Site and confirmed that soil generally is not impacted at concentrations above applicable unrestricted DTSC-modified and/or USEPA RSLs. And although some VOCs (PCE, 1,1-

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DCA, and 1,4 dioxane) from soil vapor exceeded the unrestricted default screening level (0.001 AF), the detected VOCs do not exceed their respective RBTCs at any of the calculated depth under a future residential scenario. And as shown in Table 5.7-1, site-specific HHRA results indicate that the risk associated with the wastewater treatment room and across the site correspond to a lifetime incremental cancer risk of approximately four in a million (4E-06) at 5 ft bgs and six in a million (6E-06) using an AF of 0.001 at 5ft bgs, and a HI of less than 1 for residential, in the lower end of DTSC's risk management range. Therefore, the August 2020 Corrective Action Report determined that the Project Site does not present a significant environmental concern with respect to future planned residential land use provided that appropriate management measures are implemented. The August 2020 Corrective Action Report included two action alternatives as described below, and recommended a Land Use Covenant (LUC) as the recommended corrective action to manage the risk for the Project Site:

Land Use Covenant: Execute a Land Use Covenant (LUC) as an administrative control to limit future site use to uses that do not present an unacceptable health risk. A draft LUC is included in Appendix A to the August 2020 Corrective Action Report (Appendix Fc to the DEIR).

Soil Excavation in Wastewater Treatment Room: Excavate soil to 30 feet bgs to address exceedances of unrestricted SLs in soil vapor. Will involve building sanitation, demolition, and stabilization; concrete removal; soil removal via large diameter augers or excavators; offsite transport of impacted soil for disposal; backfilling the excavation and resurfacing.

At this time, the DTSC has not approved the recommended LUC as a corrective measure and the case is still open.

Construction

Construction activities would involve demolition, grading, and construction of new buildings. Additionally, potentially hazardous materials used during construction include substances such as paints, sealants, solvents, adhesives, cleaners, and diesel fuel. There is potential for these materials to spill or to create hazardous conditions. 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 be trained in safe handling and hazardous materials use.

To prevent hazardous conditions, existing local, state, and federal laws are to be enforced at the construction sites. For example, compliance with existing regulations would ensure that construction workers and the general public are not exposed to any risks related to hazardous materials during demolition and construction activities. Cal/OSHA has regulations concerning the use of hazardous materials, including requirements for safety training, exposure warnings, availability of safety equipment, and preparation of emergency action/prevention plans. 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 encountered would be required to be collected and disposed of at an appropriately licensed disposal or treatment facility.

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The August 2020 Corrective Action Report found that potential soil vapor risks that exceed the unrestricted default screening level (0.001 AF) are generally limited to the wastewater treatment room area and that the risks are in the lower end of DTSC's risk management range for residential land use and do not exceed the commercial land use screening level. The risk management measure applies to residential occupancy only and the Proposed Project would not result in potentially significant impact from onsite soil during construction.

There is a likelihood that asbestos is present since the southern portion of the main building was constructed in 1973, before asbestos was generally phased out of use. Additionally, lead-based paint and PCB caulk may have been used in building materials. Demolition of the existing buildings has the potential to expose and disturb asbestos, lead-based paint, and PCBs. Abatement of all hazardous materials encountered during building demolition would be required to comply with the applicable laws and regulations (refer to PPP H-4 and PPP H-5).

Compliance with PPP H-1 through PPP H-5 would ensure that handling and disposal of hazardous materials during construction would comply with existing regulation and would not pose a risk to the environment or persons at schools within 0.25 mile of the site.

Operation

Operation of the Proposed Project would involve the use of small amounts of hazardous materials, such as cleansers, greases, pesticides, and oils for cleaning and maintenance purposes typical of residential communities. The use, storage, transport, and disposal of hazardous materials would be governed by existing regulations of several agencies, including the USEPA, US Department of Transportation, Cal/OSHA, and the OCEHD. 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 August 2020 Corrective Action Report concluded that low concentrations of VOC (PCE, 1,1-DCA, and 1,4 dioxane) that exceed the applicable residential land use threshold level were found in the soil vapor in the wastewater treatment room area. Therefore, it was recommended that the risk be managed either through a LUC or by excavating the area soil to 30 feet bgs. The report selected a LUC to reduce potential impacts to future residential occupants for the following reasons: 1) the LUC is effective and protective in that it limits site use to those uses that do not present an unacceptable health risk; 2) the site-specific HHRA and SHHRA demonstrate that the site, as is, does not present an unacceptable health risk; 3) the excavation alternative is more invasive and will take longer time to implement, which itself could create additional environmental impacts; and 4) the excavation would only provide a limited incremental health risk benefit that reduces cumulative cancer risk from 2E-06 to less than 1E-06. Development of the Project Site as proposed would result in potential hazardous materials impact to future resident without implanting one of the two recommended corrective action.

JSerra Catholic High School is approximately 0.1 mile west of the Project Site beyond I-5. The next closest school to the Project Site is Saddleback Valley Christian School at 26333 Oso Road (approximately 0.4 mile west of the Project Site). The Proposed Project would not include industrial land uses that could emit toxic air contaminants that could be hazardous to persons at schools within one-quarter mile of the site. As stated above,

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the proposed development of residential uses would use relatively small amounts of hazardous materials and would be required to comply with state and local hazardous materials regulations.

Level of Significance Before Mitigation: Potentially Significant.

IMPACT 5.7-2: The Project Site is on a list of hazardous materials sites. [Threshold H-4]

The Project Site has been listed on the DTSC's Envirostor database as an active cleanup status as of January 14, 2016. In 2015, Meggitt Inc. (former owner of the site) submitted a Phase I, Phase II, and Hazardous Waste Tank System Closure Certification Report as current conditions reports to DTSC. DTSC provided comments on these reports. Meggitt agreed to submit a work plan to address data gaps identified in DTSC comments. A Soil and Soil Vapor report (dated February 7, 2018) was submitted to DTSC, which only considered commercial screening levels. In April 2018, DTSC requested additional work, and a work plan was submitted for soil vapor and groundwater evaluation in October 2019. DTSC did a site visit to observe fieldwork on November 15, 2019. Results for the unrestricted end point based on the field work conducted in November 2019 were submitted to DTSC in the February 2020 Site Closure report. DTSC provided comments for the February 2020 report on March 27, 2020, and also conducted conference calls on May 6, 2020, May 29, June 24, and July 29 to discuss the comments and a path to regulatory closure status. Based on various site investigations and field work and comments from DTSC, the August 2020 Corrective Action Report was prepared and submitted to DTSC. DTSC has not yet commented on the report and the case is still active. The Proposed Project is required to obtain a case closure status from DTSC prior to obtaining a building permit.

The project applicant is required to comply with the corrective action measures as approved by DTSC to ensure that impacts from onsite hazardous materials are reduced to a less than significant level, and the case is closed.

Level of Significance Before Mitigation: Potentially Significant.

Impact 5.7-3: Project development would not affect the implementation of an emergency responder or evacuation plan. [Threshold H-6]

The development of residential units at the Project Site would increase persons at the Project Site and increase the volume of vehicles entering and leaving the Project Site. Rancho Viejo Road is an identified evacuation route that borders the Project Site to the west. Rancho Viejo Road provides access out of San Juan Capistrano northbound and provides access to I-5, which is also identified as an evacuation route in both north and south directions. The traffic study prepared for the Proposed Project (see Appendix I) indicates that satisfactory levels of service will be maintained at project buildout. Therefore, traffic from the project would not interfere with emergency responder times or evacuation routes.

Construction of the Proposed Project may temporarily divert traffic along Rancho Viejo Road with the required realignment of Rancho Viejo Road adjacent to the Project Site. Temporary traffic diversion and impacts to the roadway would be coordinated with the City and applicable emergency response agencies to ensure adequate access along Rancho Viejo Road during construction of the project. Additionally, truck haul routes would be approved by the City.

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Level of Significance Before Mitigation: Less than Significant.

5.7.5 Cumulative Impacts

Past, existing, and planned development in the city could pose risks to public health and safety as they relate to the handling, use, and storage of hazardous materials and wastes. The Proposed Project and other development in the project vicinity could increase these risks if they are not remediated and/or managed properly in accordance with applicable regulations. Compliance with applicable regulations related to public health and safety and hazardous materials would ensure that impacts are reduced to a less than significant level, individually and cumulatively.

Other projects in San Juan Capistrano would be required to prepare assessments for hazardous materials, such as lead-based paint, asbestos-containing materials, and other contamination from past uses and/or releases. Cleanup of hazardous materials in soil, soil vapor, and/or groundwater to regulatory cleanup levels for relevant types of land uses would be required in compliance with applicable federal, state, and regional regulations, as listed in Section 5.7.1.1. Therefore, the use, storage, transport, and disposal of hazardous materials by construction and operation of other projects would result in site-specific impacts and would be reduced to a less than significant level. Combined with the Proposed Project, impacts would not be cumulatively considerable.

5.7.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements (PPP H-1 through PPP H-5), the following impacts would be less than significant: 5.7-1 and 5.7-3. Without mitigation, this impact would be **potentially significant**:

- **Impact 5.7-1:** The Project Site contains hazardous materials in the soil beneath the wastewater treatment room that exceed the residential land use threshold level.
- **Impact 5.7-2:** The Project Site is listed as an active site on EnviroStor database.

5.7.7 Mitigation Measures

Impacts 5.7-1 and 5.7-2

HAZ-1 Prior to the issuance of the first building permit, the project applicant shall submit a written proof to the City of San Juan Capistrano from the California Department of Toxic Substances Control (DTSC) confirming a Land Use Covenant (LUC) is acceptable to manage the potential exposure to low concentrations of volatile organic compounds (VOCs) found in the soil for residential land uses.

A draft LUC is included in Appendix A to the “Revised Supplemental Soil Vapor Sampling, Regional Groundwater Evaluation, and Corrective Action Recommendation Report” dated August 2020 by Ramboll (Appendix Fc to the DEIR). The key land use restrictions included in the LUC are as follows:

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- The property shall not be used for a) a hospital for humans; 2) a public or private school for persons under 18 years of age; 3) a day care center for children.
- No structures intended for residential occupancy may be built on the property without an engineered vapor mitigation system approved by DTSC except where it can be shown through additional evaluation approved by DTSC that there is no unacceptable risk to human health via the vapor intrusion pathway.
- No activities that will disturb the soil shall be allowed at the property without a soil management plan pre-approved by DTSC in writing.
- Any soil brought to the surface by grading, excavation, trenching, or backfilling shall be managed in accordance with all applicable provisions of state and federal law.
- Extraction or removal of groundwater without a groundwater management plan pre-approved by DTSC in writing shall be prohibited.
- Activity that may alter, interfere with, or otherwise affect the integrity or effectiveness of, or the access to, any investigative, remedial, monitoring, operation or maintenance system required for the project without prior written approval of DTSC shall be prohibited.

5.7.8 Level of Significance After Mitigation

Impact 5.7-3 is less than significant prior to mitigation. With the incorporation of Mitigation Measure HAZ-1, the potential exposure to residual concentrations of VOC present at the Project Site for residential occupants would be reduced to a less than significant level. Impact 5.7-1 and 5.7-2 would be less than significant. Significant and unavoidable impact would not occur.

5.7.9 References

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