

5.13 HAZARDS AND HAZARDOUS MATERIALS

This section identifies pertinent regulatory standards, describes existing hazards and hazardous material occurrences and listings within the project site and vicinity, and evaluates associated potential impacts and mitigation requirements related to implementation of the proposed Project.

This EIR tiers from the Previous Environmental Review Documents, as described in Chapter 2.0, *Introduction*. The 2013 SEIR did not address hazards and hazardous materials, but relied on analysis in the 1993 Program EIR for the GDP (EIR 90-01). EIR 90-01 addressed risk of upset impacts and applicable mitigation included measures to require that the transport hazardous waste be conducted in accordance with state and federal laws and that future SPA plans identify emergency evacuation routes. Impacts with mitigation were concluded to be less than significant. The 2001 SEIR (01-01) did not address hazards and hazardous materials, but relied on the 1989 EastLake III EIR (89-09), which addressed hazards related to geology and soils. Mitigation for the Lake Property was included to require detailed geotechnical and soils reports to mitigate any hazardous conditions on the property. It is noted, however, that no previous mitigation measures are incorporated by reference because the reports related to the current Project include updated mitigation measures that are equivalent to or more efficient than measures included in previous environmental review.

The following evaluation is based on a site-specific Hazardous Materials Technical Study (HMTS) that was prepared for the Project by Ninyo & Moore. The information in this report is summarized below along with other applicable data, and the complete HMTS included as Appendix J of this EIR. The technical report updates the applicable information contained in the SEIRs.

5.13.1 Existing Conditions

A. **Regulatory Framework**

1. *Federal*

a. **Resource Conservation and Recovery Act of 1976**

Federal hazardous waste laws are largely promulgated under the Resource Conservation and Recovery Act (RCRA, CFR Title 40, Part 260), as amended by the Hazardous and Solid Waste Amendments of 1984. These laws provide for the “cradle to grave” regulation of hazardous wastes. Specifically, under RCRA any business, institution or other entity that generates hazardous waste is required to identify and track its hazardous waste from the point of generation until it is recycled, reused, or disposed of. The USEPA has the primary responsibility for implementing RCRA, although individual states can obtain authorization to implement some or all RCRA provisions (with California an authorized RCRA state, as outlined below under State Standards).

b. **Hazardous Material Transportation Act**

Transportation of hazardous materials is regulated by the USDOT’s Office of Hazardous Materials Safety. The office formulates, issues, and revises hazardous materials regulations under the Federal Hazardous Materials Transportation Law. The hazardous materials regulations cover hazardous materials definitions and classifications, hazard communications, shipper and carrier operations,

training and security requirements, and packaging and container specifications. The hazardous materials transportation regulations are codified in 49 CFR Parts 100–185.

The hazardous materials transportation regulations require carriers transporting hazardous materials to receive required training in the handling and transportation of hazardous materials. Training requirements include pre-trip safety inspections, use of vehicle controls and equipment including emergency equipment, procedures for safe operation of the transport vehicle, training on the properties of the hazardous material being transported, and loading and unloading procedures. All drivers must possess a commercial driver’s license as required by 49 CFR Part 383. Vehicles transporting hazardous materials must be properly placarded. In addition, the carrier is responsible for the safe unloading of hazardous materials at the site, and operators must follow specific procedures during unloading to minimize the potential for an accidental release of hazardous materials.

Transportation by rail is regulated per 49 CFR Part 174. Subpart C covers the requirements for marking and placarding of rail cars and the segregation of hazardous materials. Subpart D covers the requirements for handling of placarded rail cars, including position in the train and maximum allowable speed (50 miles per hour for most hazards substances). Subparts E, F, G, J, and K include requirements for transportation of explosives, gases, flammable liquids, poisonous materials, and radioactive materials, respectively. Safety requirements include inspections at every stop, specific training, and train crew knowledge of the rail car contents and location.

c. Comprehensive Environmental Response, Compensation, and Liability Act

The 1980 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, provides federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA established requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for clean up when no responsible party could be identified. CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also established the National Priorities List, which is a list of contaminated sites warranting further investigation by the USEPA. CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986.

Under 40 Code of Federal Regulations (CFR) Part 112, specific facilities must prepare, amend and implement Spill Prevention Control and Countermeasure (SPCC) plans. The SPCC rule is part of the Oil Pollution Prevention regulation, the purpose of which is to prevent oil discharges to navigable waters and adjoining shorelines. The SPCC rule applies to facilities that are engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing, using or consuming of oil and store oil above or below ground in volumes greater than 1,320 gallons and 42,000 gallons respectively. The CalEPA has published a fact sheet, dated December 2007, outlining the requirements for preparing and implementing SPCC plans in the state of California.

d. Superfund Amendments and Reauthorization Act

SARA is primarily intended to address the emergency management of accidental releases, and to establish state and local emergency planning committees responsible for collecting hazardous material inventory, handling and transportation data. Specifically, under Title III of SARA, a nationwide emergency planning and response program established reporting requirements for businesses that store, handle or produce significant quantities of hazardous or acutely toxic substances as defined under federal laws. Title III of SARA also requires each state to implement a comprehensive system to inform federal authorities, local agencies and the public when significant quantities of hazardous or acutely toxic substances are stored or handled at a facility. These data are made available to the community at large under the “right-to-know” provision, with SARA also requiring annual reporting of continuous emissions and accidental releases of specified compounds.

e. Federal Aviation Administration

The Federal Aviation Administration (FAA) oversees airport safety and rules associated with development that may present a safety concern near existing airports. Specific related requirements include submittal of Form 7460-1, Notice of Proposed Construction or Alteration, prior to applicable construction, including structures that are 200 feet or higher above the graded terrain or that extend within identified (theoretical) slopes projecting from airport runways (or other applicable locations, per FCR Title 14, Part 77). Based on agency review, individual projects may be required to implement appropriate measures to maintain compatibility with airport operations and ensure that potential hazards are avoided, potentially including efforts such as reducing building heights or marking/lighting structures.

2. *State*

a. California Code of Regulations

Most state and federal regulations and requirements that apply to generators of hazardous waste are codified in CCR Title 22, Division 4.5. Title 22 contains detailed compliance requirements for hazardous waste generation, transport, treatment, storage, and disposal facilities/activities. Because California is a fully authorized state under RCRA, most RCRA regulations are integrated into Title 22. The CalEPA/Department of Toxic Substance Control (DTSC) regulates hazardous waste more stringently than the USEPA, however, with Title 22; therefore, not including as many exemptions or exclusions as the equivalent federal regulations. Similar to the California Health and Safety Code (as outlined below), Title 22 also regulates a wider range of waste types and waste management activities than RCRA. The state has compiled a number of additional regulations from various CCR titles related to hazardous materials, wastes and toxics into CCR Title 26 (Toxics), and provides additional related guidance in Titles 23 (Waters) and 27 (Environmental Protection), although California hazardous waste regulations are still commonly referred to as Title 22.

Title 24 of the CCR provides a number of requirements related to fire safety, including applicable elements of Part 2, the California Building Code (CBC); Part 2.5, the California Residential Code (CRC); and Part 9, the California Fire Code (CFC). Specifically, CBC Chapter 7 (Fire and Smoke

Protection Features) includes standards related to building materials, systems, and assembly methods to provide fire resistance and prevent the internal and external spreading of fire and smoke (such as the use of non-combustible materials and fire/ember/smoke barriers). CBC Chapter 9 (Fire Protection Systems) provides standards regarding when fire protection systems (such as alarms and automatic sprinklers) are required, as well as criteria for their design, installation, and operation. Section R327 of the CRC includes measures to identify Fire Hazard Severity Zones and assign agency responsibility (i.e., Federal, State and Local Responsibility Areas; refer to the discussion below under California Department of Forestry and Fire Protection), and provides fire-related standards for building design, materials, and treatments. The CFC establishes minimum standards to safeguard public health and safety from hazards including fire in new and existing structures. Specifically, this includes requirements related to fire hazards from building use/occupancy (e.g., access for fire-fighting equipment/personnel and provision of water supplies), the installation or alteration/removal of fire suppression or alarm systems, and the management of vegetative fuels and provision of defensible space.

Title 5, Division 1, Chapter 13, Subchapter 1 of the CCR establishes minimum standards for the siting of schools and school construction to provide safety for students and staff. These regulations designate minimum distances that schools can be located from potential hazards such as power line easements, and sets screening distances for other hazards that would require a safety study, such as a railroad track easement. Section 14010(h) states that schools shall not be located near an above ground water or fuel storage tank or within 1,500 feet of the easement of an above ground or underground pipeline that can pose a safety hazard as determined by a risk analysis study. Section 14010(t) states that if a proposed site is on or within 2,000 feet of a significant disposal of hazardous waste, the school district shall contact the DTSC for a determination of whether the property should be considered a hazardous waste or border zone property and is, therefore, unsuitable for school development.

b. California Health and Safety Code

The CalEPA/DTSC has established rules governing the use of hazardous materials and the management of hazardous wastes. California Health and Safety Code Section 25531, et seq., incorporates the requirements of SARA and the Clean Air Act as they pertain to hazardous materials. Under the California Accidental Release Prevention Program (CalARP, California Health and Safety Code Section 25531 to 25545.3), certain businesses that store or handle more than 500 pounds, 55 gallons or 200 cubic feet (for gases) of acutely hazardous materials at their facilities are required to develop and submit a Risk Management Plan (RMP) to the appropriate local authorities, the designated local administering agency and the USEPA for review and approval. The RMP is intended to satisfy federal “right-to-know” requirements and provide basic information to regulators and first responders, including identification/quantification of regulated substances used or stored on site, operational and safety mechanisms in place (including employee training), potential on- and off-site consequences of a release and emergency response provisions.

Under California Health and Safety Code Section 25500-25543.2, businesses handling or storing certain amounts of hazardous materials are required to prepare a Hazardous Materials Business Emergency Plan (HMBEP), which includes an inventory of hazardous materials stored on site (above specified quantities), an emergency response plan, and an employee training program. HMBEPs are also required to include a written set of procedures and information created to help

minimize the effects and extent of a release or threatened release of a hazardous material, and must be prepared prior to facility operation (with updates and amendments required for appropriate circumstances such as changes in business location, ownership, or operations).

Pursuant to California Health and Safety Code Chapter 6.11, CalEPA established the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program), which consolidated a number of existing state programs related to hazards and hazardous materials. The Unified Program also allows the designation of Certified Unified Program Agencies (CUPAs) to implement associated state regulations within their jurisdiction. For businesses within the City, applicable hazardous materials plans (such as RMPs and HMBEPs) are submitted to and approved by the San Diego County Department of Environmental Health/Hazardous Materials Division (DEH/HMD), which is the local CUPA as outlined below under local requirements.

Division 12 (Fires and Fire Protection) of the California Health and Safety Code provides a number of standards related to fire protection methods, including requirements for management of vegetation comprising a potential fire hazard under Part 5, Chapters 1 through 3.

c. Hazardous Materials Transportation

Under Federal Standards, CHP and Caltrans are the state enforcement agencies for hazardous materials transportation regulations. In California, transportation of hazardous waste is regulated under Chapter 6.5 of the California Health and Safety Code. Under Section 21560, hazardous waste generators must complete a manifest for the waste before it is transported or offered for transportation. A manifest is a shipping document that is signed by the hazardous waste generator and contains the necessary information to be in compliance with all state and federal regulations. The purpose of the manifest is to allow for the waste to be tracked from point of origin through point of disposal and for the generator or regulatory agency to verify that the waste is properly delivered without incurring any loss along the way.

d. California Department of Forestry and Fire Protection - State Responsibility Areas System

Legislative mandates passed in 1981 (Senate Bill [SB] 81) and 1982 (SB 1916) require the California Department of Forestry and Fire Protection (Cal Fire) to develop and implement a system to rank fire hazards in California. Areas are rated as moderate, high or very high based primarily on the assessment of different fuel types. Cal Fire also identifies responsibility areas for fire protection, including Federal Responsibility Areas (FRAs), State Responsibility Areas (SRAs) and Local Responsibility Areas (LRAs). The project site is within the municipal boundaries of the City of Chula Vista, and is designated as an LRA with the City responsible for fire suppression (Cal Fire 2016).

e. California Disaster and Civil Defense Master Mutual Aid Agreement

This agreement was developed in 1950 and adopted by all 58 California counties. This statewide mutual aid system is designed to ensure that adequate resources, facilities, and other support is provided to jurisdictions whenever their own resources prove to be inadequate to cope with a given situation. San Diego County is located in Mutual Aid Region 6 of the State system, which also includes Imperial, Riverside, San Bernardino, Inyo, and Mono counties.

f. Senate Bill 1241

Senate Bill 1241 requires cities and counties to address fire risk in state responsibility areas (SRAs) and very high fire hazard severity zones in the safety element of their general plans upon the next revision of the housing element. This bill also requires cities and counties to make certain findings regarding available fire protection and suppression services before approving a tentative map or parcel map.

3. *Regional*

a. Regional Water Quality Control Board

The SWRCB protects water quality in California by setting statewide policy. The SWRCB supports the nine RWQCBs, which, within their areas of jurisdiction, protect surface and groundwater from pollutants discharged or threatened to be discharged to the waters of the state. For the project area, the SDRWQCB maintains jurisdiction within the subject basin. This protection is carried out by the SDRWQCB through the issuance and enforcement of National Pollutant Discharge Elimination System (NPDES) permits, called Waste Discharge Requirements (WDRs), regulation of leaking underground storage tanks and contaminated properties through the Leaking Underground Storage Tank (LUST) and Spills, Leaks, Investigation, and Cleanup (SLIC) programs respectively. Underground Storage Tanks (USTs) are regulated under Chapter 6.7 of the California Health and Safety Code and 23 CCR Chapter 16. The RWQCBs issue WDRs for operating and closed landfills under 27 CCR Chapters 3, Section 20950, et seq.

4. *Local*

a. San Diego County

Department of Environmental Health/Hazardous Materials Division

As noted above under State guidelines, the County DEH/HMD is the local CUPA, and has jurisdiction over hazardous materials plans in the City. The County DEH/HMD also requires businesses that handle reportable quantities of hazardous materials, hazardous wastes, or extremely hazardous substances to submit a Hazardous Materials Business Plan (HMBP), which includes detailed information on the storage of regulated substances. The County DEH/HMD provides guidelines for the preparation and implementation of HMBPs, including direction on submittal requirements, covered materials, inspections, and compliance.

The DEH/HMD is also the administering agency for the San Diego County Operational Area Hazardous Materials Area Plan (County of San Diego 2011b). This plan identifies the system and procedures used within the County to address hazardous materials emergencies, and provides guidelines for topics such as transportation, industry/agency coordination, planning, training, public safety, and emergency response/evacuation.

Office of Emergency Services

The County Office of Emergency Services (OES) and Unified Disaster Council administer the San Diego County Multi-Jurisdictional Hazard Mitigation Plan (MHMP), a countywide plan to identify

risks and minimize damage from natural and man-made disasters (County of San Diego 2010). The primary goals of the plan include efforts to promote and provide compliance with applicable regulatory requirements (including through the promulgation/enhancement of local requirements for participating agencies including the City), increase public awareness and understanding of hazard-related issues, and foster inter-jurisdictional coordination.

The OES also administers the County Unified San Diego County Emergency Services Organization and County of San Diego Operational Area Emergency Operations Plan (EOP, County of San Diego 2014), which addresses emergency issues including evacuation and provides guidance for responding to major emergencies and disasters. Specifically, Annex Q (Evacuation) of the plan notes that: “Primary evacuation routes consist of major interstates, highways, and prime arterials within San Diego County...,” with identified primary evacuation routes in the project site vicinity including Interstate (I-) 5, I-805, State Route (SR-) 125, SR-905, and SR-54.

Unified County Emergency Response Team Program

The City has comprehensive agreements with the U.S. Bureau of Land Management, California Department of Forestry, California Conservation Corps, Urban Search and Rescue Corps, San Diego County Fire Mutual Aid, and other agencies in conjunction with the California Disaster and Civil Defense Master Mutual Aid Agreement. The proposed project is incorporated into existing City emergency disaster programs, including all fire and emergency services and mutual aid agreements.

b. San Diego Airport Land Use Commission

The San Diego Airport Land Use Commission (ALUC) establishes review requirements for new development or redevelopment within applicable airport influence areas (AIAs), as identified in Airport Land Use Compatibility Plans (ALUCPs). AIAs are generally defined as areas where airport-related noise, safety, airspace protection, and overflight factors may significantly affect land use compatibility or necessitate restrictions on certain land uses as determined by the ALUC. The AIAs include two general areas, Review Areas 1 and 2, as defined by mapped boundaries in the associated ALUCPs.

For the proposed project, Brown Field Municipal Airport is the only facility with AIAs applicable to the project site, and is limited to Review Area 2 (see Figure 5.1-1). Review Area 1 for Brown Field is located adjacent to the ends of the primary runway surfaces and does not apply to the proposed project. Review Area 2 for Brown Field involves height restrictions for applicable structures, and encompasses the southwestern corner of the Project site (SDRAA 2010). In addition, the project site is within the FAA Noticing Area for Brown Field, as previously described under FAA Requirements.

c. City of Chula Vista

Community Emergency Response Team Program

The City provides a Community Emergency Response Team (CERT) program that offers training to citizens for effective and efficient response to emergency situations without placing themselves or others in unnecessary danger. Specifically, CERT training includes guidance on managing

utilities, putting out small fires, providing basic emergency medical aid, search and rescue operations, volunteer organization, and collection of disaster information to support first responders.

General Plan

The Chula Vista General Plan Environmental Element addresses wildfire hazards and hazardous materials/waste. Specifically, the Environmental Element includes the following applicable related objectives and policies: (1) Objective E 16, Minimize the risk of injury and property damage associated with wildland fire hazards, with a related policy to implement appropriate brush management programs; and (2) Objective E 17, Ensure the adequate remediation of contaminated sites as redevelopment occurs to protect public health and safety, with related policies to remediate contaminated sites and ensure that associated future uses and public health and safety are not compromised, and conduct the remediation of contaminated sites in accordance with applicable regulatory standards and environmental assessments prior to development.

Hazardous Materials Technical Study

The primary purpose of the project Hazardous Materials Technical Study (HMTS) was to document the presence of properties that have been potentially impacted by hazardous materials or wastes. Specific efforts involved in this investigation included a records review, documentation of site history, field reconnaissance, and soil testing. In addition, a prior hazardous materials investigation covering approximately 690 acres in Otay Ranch Villages 3, 8 and 10 was reviewed, with the Village 10 site adjacent to or overlapping the western portion of the Main Campus Property. These efforts, along with related design measure recommendations, are outlined below for the project area, with additional detail provided in the project HMTS (Appendix J).

B. Hazardous Site Database Records Review

A review of regulatory database records related to hazardous materials/wastes was conducted for the project site area, including a search zone extending one mile from the site boundaries. Applicable data base files included: (1) NPL, CERCLIS, RCRA and other applicable federal sites; (2) DTSC EnviroStor and SWRCB GeoTracker sites; (3) registered above ground (ASTs) and underground storage tank (USTs) sites; (4) leaking underground storage tank (LUST) sites; (5) Solid Waste Information System (SWIS) sites; (6) Formerly Used Defense Sites (FUDS); and (7) other applicable federal, State, and local databases (as outlined in the project HMTS). Five applicable property/facility listings were identified in the noted data base searches, with none of these listings considered environmental concerns for the project site as summarized below.

1. Otay Ranch Village 11 S-1 School Site, 1650 Exploration Drive. This site, located approximately 0.4 mile north of the proposed project, was investigated due to former agricultural use, with the DTSC concluding that “no further action” was required. Accordingly, this location is not considered an environmental concern for the project site.
2. Middle School No. 12/High School No. 14, Eastlake Parkway/Hunte Parkway. This site, located adjacent to the northern project site boundary, was investigated due to former agricultural use, with the DTSC concluding that “no further action” was required. Accordingly, this location is not considered an environmental concern for the project site.

3. Lower Otay Lake Filtration Plant, 2200 Wueste Road. This site, located approximately 0.2 mile south of the Lake Property portion of the project site, had a documented unauthorized (LUST) release of gasoline that impacted adjacent soil. Based on the SWRCB GeoTracker listing, soil contamination did not extend below 40 inches in depth, the LUST and associated soil were removed, and it was estimated that less than one cubic foot of contaminated soil remains. Due to the noted conditions, the project HMTS concluded that this location is not considered an environmental concern for the project site.
4. Brown Field Bombing Range FUDS. The former Brown Field Bombing Range is located approximately 0.2 to 0.5 mile south of the project site, and is known or suspected to contain military munitions and explosives of concern (e.g., unexploded ordnance). Based on the intervening distance, the Brown Field FUDS property is not considered an environmental concern for the project site.
5. High Tech K-12 School. This property, located within the project site along Hunte Parkway, is identified as an “orphan property” in HMTS (i.e., properties for which specific address information was not provided in the regulatory listings). The listing for High Tech K-12 School is associated with a NPDES permit issued in August 2010, likely in association with construction of the school. As a result, the project HMTS concludes that this site has a “low likelihood” of representing an environmental concern to the project area.

C. Other Hazards Information

1. Site History

A summary of historical uses in the project site and vicinity is provided below, based on review of historic aerial photos, topographic maps and City street directories (Sanborn[®] fire insurance maps were unavailable for the project area).

The project site was undeveloped in the early part of the 20th Century, with the northern and western portions of the Main Campus Property, as well as adjacent properties to the north, exhibiting evidence of agricultural activity (plowing) at least as early as 1953. These uses continued until sometime between 1974 and 1980, when agricultural operations appeared to cease. Subsequent land uses on the Main Campus Property and adjacent areas included recovering native habitat between approximately 1980 and 1996 and minor development of roads. These conditions were similar for the Main Campus Property and vicinity after 1996, with the exception of additional development to the north including High Tech K-12 School (first observed in 2009), Hunte Parkway (first observed in 2005), and additional urban sites north of Hunte Parkway.

The Lake Property was observed to be generally undeveloped throughout the above noted timeframe, with no agricultural activity and minor development limited to unpaved roads and power line facilities. Development in adjacent areas include Wueste Road adjacent to the east (first observed in 1992/1993), the Otay filtration plant and related facilities (e.g., roads/parking areas) approximately 0.2 mile to the south (reportedly in service since 1914, City of San Diego 2016), and the U.S. Olympic Training Facility approximately 0.1 mile to the north (first observed in 1996).

2. *Field Reconnaissance*

A field reconnaissance visit was conducted within the project area by Ninyo & Moore technical staff on April 12, 2013. The primary intent of this reconnaissance was to identify the presence and nature of potential sites of environmental concern. Based on this reconnaissance, the following observations were provided:

- (1) aerially-deposited lead is not anticipated to be an environmental concern at the project site, due to the current and historical absence of major roadways (i.e., the principal source of aerially-deposited lead);
- (2) while electrical transformers were observed just north of the site along Hunte Parkway, they are not anticipated to represent environmental concerns for the project site, due to their recent age (and associated low potential for inclusion of PCBs);
- (3) railroads and associated potential environmental concerns are not present in the site vicinity;
- (4) asbestos-containing materials (e.g., insulation) and materials designated under Universal Waste Rule requirements (e.g., mercury-containing switches and fluorescent light tubes) were not observed or expected to occur on-site;
- (5) while lead-based paint was not observed or expected to occur in the site vicinity, some potential exists for lead-based paint to be present along adjacent portions of Hunte Parkway (i.e., in association with roadway striping);
- (6) wooden facilities treated with chemical preservatives (e.g., creosote or copper compounds) may potentially be present on-site in association with facilities such as utility poles, guardrails, and fences; and
- (7) residual chemical pesticides may potentially be present on-site in association with former agricultural activities, with the results of related soil testing outlined below under Item 3.

3. *Soil Testing*

Based on the historical use of the project site for agriculture as previously described, on-site soils were tested for organochlorine pesticides (OCPs, including dichlorodiphenyltrichloroethane [DDT], dichlorodiphenyldichloroethylene [DDE], and chlordane). This effort involved the collection of nine shallow soil samples from the Main Campus Property and one sample from the Lake Property for laboratory testing, with specific sampling/testing locations and methodologies described in the project HMTS (Appendix J). OCPs were detected in 8 of the 10 samples collected, with the range of concentrations for tested OCPs as follows: (1) 4,4-DDE, from below the detection limit to 25.2 micrograms per kilogram ($\mu\text{g}/\text{kg}$); (2) 4,4-DDT, from below the detection limit to 5.15 $\mu\text{g}/\text{kg}$; and (3) total chlordane, from below the detection limit to 4.18 $\mu\text{g}/\text{kg}$. These levels were compared to the California Human Health Hazard Screening Levels (CHHSLs), which are thresholds for human health concerns identified by CalEPA. The noted on-site concentrations of OCPs were at least two orders of magnitude below the CHHSLs for residential use, with the project

HMTS; therefore, concluding that residual OCP levels do not represent an environmental concern to the project area.

4. *Previous Hazardous Materials Investigation Review*

Based on review of the previous hazardous materials investigation (Coast 2 Coast Environmental [C2C] 2011), the project HMTS concluded that this investigation identified similar regulatory listings and history as noted for the proposed project site. This investigation also included soil testing, and documented OCP levels above residential thresholds in “some” (unidentified) areas, with additional soil testing recommended prior to grading. As previously noted, however, observed OCPs levels at the project site (including the western portion of the Main Campus Property) did not exceed (or approach) the CHHSLs for residential use, with no associated environmental concerns identified.

5. *Other Potential Environmental Hazards*

The 1993 Otay Ranch GDP Program EIR identified three off-site properties that could potentially represent environmental concerns for the proposed project site, including the Otay Landfill, Brown Field, and Rock Mountain Quarry. Based on analysis provided in the 2009 EIR prepared for the Millenia site, the Otay Landfill is located approximately three miles west of the Main Campus Property, includes a former hazardous waste reprocessing operation, and continues to provide disposal waste services (Chula Vista 2009). The Rock Mountain Quarry, located approximately two miles southwest of the Main Campus Property, represents a potential source of contamination from waste oil, fuel spills, residual blasting chemicals, and air emissions. Based on the intervening distances to these two properties, no associated environmental concerns are anticipated at the project site, with the Otay Landfill and Rock Mountain Quarry also not identified as potential environmental concerns in the project HMTS.

Brown Field Municipal Airport is located approximately 1.9 miles southwest of the Main Campus Property at its closest point. The Brown Field Airport is operated by the City of San Diego under the associated ALUCP, and may present associated hazards due to flights occurring over the project site. Specifically, as noted above under the discussion of Regulatory Framework, while the project site is not within Review Area 1 for Brown Field (noise and safety concerns), Review Area 2 for Brown Field (height restrictions for applicable structures) includes the project site. In addition, the project site is within the FAA Noticing Area for Brown Field, as outlined above under FAA Requirements.

It should also be noted that a public comment letter received for the Village 9 EIR indicated that the Village 9 site would be subject to overflight operations associated with Brown Field. Specifically, there is an instrument approach procedure for aircraft approaching Brown Field from the north, which terminates approximately 0.5 mile west of the proposed project site. Once at this location, pilots must be able to see the airport visually and then circle to land. Because aircraft using this approach may fly in any weather condition and 24 hours a day, the southwestern portion of the Main Campus Property may be subject to overflights as described. Accordingly, applicable on-site areas would be subject to an Overflight Notification, which does not include any development restrictions, but provides notification to potential buyers that the property is within an overflight area as described (SDRRA 2010). In addition, as described in the Village 9 EIR

(Chula Vista 2014a), portions of the project site may be subject to overflights from the Tijuana International Airport, located approximately 2.2 miles to the south-southwest at its closest point. Accordingly, while this facility is outside the purview of the ALUC (and therefore does not have an adopted ALUCP), applicable portions of the project site may be subject to Overflight Notification for operations at the Tijuana Airport, similar to those described above for Brown Field.

5.13.2 Thresholds of Significance

Based on Appendix G of the CEQA Guidelines and related City criteria, impacts regarding hazards and hazardous materials would be significant if the Project would:

- **Threshold 1:** Create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials.
- **Threshold 2:** Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- **Threshold 3:** Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- **Threshold 4:** Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, a significant hazard to the public or the environment is created.
- **Threshold 5:** Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport, public use airport, or private airstrip, and result in a safety hazard for people residing or working in the project area.
- **Threshold 6:** Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- **Threshold 7:** Expose people or structures to a significant risk or loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

5.13.3 Impact Analysis

A. Threshold 1: Create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials.

As described in Section 5.11, *Hydrology and Water Quality*, Project-related construction and operational activities would involve the routine use, transport, storage, or disposal of potentially hazardous materials such as vehicle/equipment fuels and lubricants, concrete and paint, portable septic system wastes, cleaning detergents/solvents, and chemical pesticides/fertilizers. The Project WQTR/Hydromodification Plan (HMP) (Appendix H) identifies a number of measures and BMPs to address associated potential issues, in conformance with applicable regulatory requirements

including standards related to City storm water, NPDES, and hazardous materials handling/disposal guidelines.

In addition, all such uses would be subject to applicable and required regulatory controls as described above under *Regulatory Framework* in Section 5.13.1. Specifically, this would include conformance with applicable federal, state, and local standards related to hazardous materials and wastes, such as controls on use, handling, storage, transportation, and disposal. Detailed requirements would be identified in associated plans such as RMPs, HMBEPs, and HMBPs, with specific requirements to include standard measures such as appropriate inventory documentation, storage controls (e.g., secondary containment), operational and safety mechanisms (e.g., employee training), and emergency response provisions (e.g., agency notification and spill contingency plans).

Based on the described regulations, impacts related to the routine transport, use, and/or disposal of hazardous materials during Project construction and operation would be less than significant.

B. Threshold 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.

The Project SPA Plan notes that long-term site operation would potentially entail the use, storage, and disposal of hazardous materials such as chemical pesticides associated with proposed agricultural research, as well as hazardous materials related to medical facilities and other research efforts. While the presence of such materials could potentially result in impacts related to accidental releases, all such uses would be subject to applicable and required regulatory controls as described above under *Regulatory Framework* in Section 5.13.1. Specifically, this would include conformance with applicable federal, state, and local standards related to hazardous materials and wastes, such as controls on use, handling, storage, transportation, and disposal. Detailed requirements would be identified in associated plans such as RMPs, HMBEPs, and HMBPs, with specific requirements to include standard measures such as appropriate inventory documentation, storage controls (e.g., secondary containment), operational and safety mechanisms (e.g., employee training), and emergency response provisions (e.g., agency notification and spill contingency plans).

A testing program for residual concentrations of OCPs in on-site soils was conducted under the HMTS, as described above in Section 5.13.1. Observed OCP concentrations were concluded to be at least two orders of magnitude below the CHHSLs for residential use, with the Project HMTS concluding that residual OCP levels do not represent an environmental concern to the Project area. Based on the described conditions, impacts are considered to be potentially significant (Impact 5.13-1a).

C. Threshold 3: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

The Project site encompasses the existing High Tech K-12 School campus along Hunte Parkway, and other areas of the site include proposed school-related uses associated with university

development. As outlined above under the discussion of Thresholds 1 and 2, the Project would entail the routine use, handling, storage, transportation, and disposal of hazardous materials and wastes. As such, impacts related to the potential emissions of hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school are considered to be potentially significant (Impact 5.13-1b).

D. Threshold 4: Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, a significant hazard to the public or the environment is created.

Based on the results of the Project-specific HMTS described above in Section 5.13.1, the Project site is not located within any locations included on database listings associated with Government Code Section 65962.5 (or other applicable regulatory lists). The five listed sites identified within the Project vicinity as part of the Project HMTS investigation were concluded not to be environmental concerns for the Project site, as described in Section 5.13.1. In addition, the potential occurrence of residual OCPs in on-site soils was determined not to represent environmental concerns, based on related soil sampling/testing conducted as part of the HMTS (as noted above under Thresholds 1 and 2 and in Section 5.13.1). The HMTS also identifies a number of measures that are recommended to "...be added as notes on future grading plans to the satisfaction of the City Engineer..." as summarized in Section 5.13.1. Specifically, these measures are related to: (1) development/implementation of a Site Safety Plan prior to construction to ensure adequate protection of construction works and the public; (2) provision of notices in project construction specifications regarding the potential to encounter previously unknown contamination, as well as related efforts regarding agency notifications and remedial efforts (including preparation of an associated contingency plan); and (3) direction for categorizing excavated soil and imported fill, as applicable, to determine appropriate options for on-site use/reuse or off-site disposal.

While the Project site is not a listed site as a whole, potential impacts related to listed and potential hazardous material sites and related hazards as described are considered to be potentially significant (Impact 5.13-1c).

E. Threshold 5: Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport, public use airport, or private airstrip, and result in a safety hazard for people residing or working in the project area.

As described in Section 5.13.1, Brown Field Municipal Airport is located approximately 1.9 miles from the Project site and has an adopted ALUCP, while the Tijuana International Airport is located approximately 2.2 miles to the south and does not have an adopted ALUCP. In addition, the closest known private airstrip, John Nichols Field, is located approximately 2.5 miles to the northeast.

Based on the adopted ALUCP for Brown Field, the Project site is not located within any Review Area 1 hazard zones associated with potential noise and safety concerns (e.g., runway approach and protection zones), with no associated impacts to result from Project implementation. The Project site is, however, located within the Review Area 2 for Brown Field, as well as the FAA noticing area for proposed construction or alteration projects, as outlined in Section 5.13.1. While

the proposed signature tower structure would likely exceed the noted 200-foot height limit (i.e., the “signature tower” in the Gateway District, which is proposed to be 200 to 250 feet; refer to Figure 3-3); it would not be located within Review Area 2 and it is not anticipated that a conflict would occur. All other development would not be allowed to exceed 92 feet and would similarly not exceed the 200-foot height limit. Based on the described conditions, applicable future development under the Project (including the signature tower) would not be subject to review under FAA Noticing Area requirements.

Portions of the Project site are also within the Overflight Notification Area for both Brown Field and the Tijuana International Airport, as previously described. This designation, however, does not include any development restrictions, but requires notification to potential buyers that the property is within an overflight area (SDRAA 2010, refer also to the related discussion under *Regulatory Framework* in Section 5.13.1). As a result, impacts would be potentially significant (Impact 5.13-2).

Based on the intervening distances between the Project site and the Tijuana International Airport (2.2 miles) and John Nichols Field (2.5 miles), no other associated impacts from airport-related safety hazards would result from implementation of the Project.

F. Threshold 6: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

The Otay Ranch GDP/Subregional Plan requires that all SPA plans include an “Emergency Disaster Plan” to address the various hazards with potential to disrupt communities, cause damage, and create casualties within the area. As described in Section 9.8.5, *Emergency Disaster Plan*, of the UID SPA Plan (and above in Section 5.13.1, under *Regulatory Framework*), Chula Vista is a participating agency in a number of related local and State plans, including in the California Disaster and Civil Defense Mutual Aid Agreement, MHMP, EOP, and CERT. The City also has comprehensive agreements with the Bureau of Land Management, California Department of Forestry, California Conservation Corps, Urban Search and Rescue Corps, San Diego County Fire Mutual Aid and other agencies in conjunction with the California Disaster and Civil Defense Master Mutual Aid Agreement. The Project is incorporated into the existing City emergency disaster programs, including all described fire and emergency services and mutual aid agreements. In April 2011, the Chula Vista City Council approved Resolution 2011-067, which adopted the 2010 San Diego County MHMP as the official Multi-Jurisdictional Hazard Mitigation Plan for Chula Vista. The Project would support the intent of local and regional emergency response and evacuation plans as described through accessibility to emergency services, including existing Fire Station No. 7 (approximately two miles to the northwest in Village 2), and proposed fire stations within approximately one mile to the west (Village 8 West) and northwest (Millenia Development).

The Project would not interfere with City emergency response plans, as it would not obstruct any existing roadways or designated evacuation routes. In addition, the Project circulation system would provide regional connectivity to designated evacuation routes including I-805 and SR-125, and would reduce the potential for gridlock on these and other roadways during major disasters. The Project circulation system would also facilitate local evacuation and emergency response by providing multiple access points both within the site and to the surrounding regional circulation

system (refer to Figure 3-5). Additionally, as discussed in Section 5.9, *Public Services*, the implementation of a Project Public Facilities Financing Plan, payment of the Public Facilities Development Impact Fee, and implementation of the Growth Management Ordinance threshold standards would ensure that project implementation would not adversely impact fire protection and emergency services.

Based on the above conditions and considerations, potential project-related impacts to the implementation of, or interference with, adopted emergency response and evacuation plans/facilities would be less than significant.

G. Threshold 7: Expose people or structures to a significant risk or loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Based on Figure 9-9 of the City's General Plan, *Wildland Fire Hazards Map, of the Chula Vista General Plan Environmental Element*, the Project site is designated as a high wildfire hazard area. The site has been used historically for agriculture and is currently undeveloped, with large areas of grassland and scrubland vegetation. A number of adjacent areas also exhibit similar conditions and fire hazards, including designated open space within portions of the Otay River, Salt Creek, and adjacent uplands along the southern and eastern site boundaries. Implementation of the Project would result in development adjacent (or in proximity) to the noted off-site open space areas, as well as on-site areas proposed for habitat preservation (refer to Figure 3-3). In addition, during the interim phases of Project construction, initially developed areas may be adjacent to vacant areas scheduled for subsequent development.

Based on Chula Vista Fire Department requirements, and in accordance with related standards in the CFC, CBC, and CRC (as outlined under *Regulatory Framework* in Section 5.13.1), a Fire Protection Plan (FPP) has been prepared for the Project and is included as Appendix F of the UID SPA Plan. The primary intent of the FPP is to identify appropriate measures to reduce the risk of fire and protect life, safety, and property adjacent to wildland areas that are susceptible to fire. The FPP requires that all Project development conform to applicable requirements identified in the FPP, including applicable elements of the CFC, CBC, and CRC. Specific measures identified in the Project FPP include brush management in pertinent areas, as well as potential architectural efforts such as boxed eaves, interior/exterior sprinkler systems, and solid block wall barriers (potentially including landscaped and irrigated retaining walls). Proposed brush management would include two designated zones (Zone 1 and Zone 2), as outlined below, with additional information provided in the Project FPP (refer also to Figures 3-11a and 3-11b).

- **Brush Management Zone 1.** This zone would be implemented on applicable public and private areas located within 50 feet of structure edges, and would generally include the following elements: (1) permanent irrigation (including for landscaped retaining walls if proposed); (2) use of approved plant species, with local plant/seed sources to be used if available; (3) restriction of tree limbs within 10 feet of structures or chimneys (including outdoor barbecues and fireplaces); (4) provision of a minimum 10-foot spacing between tree canopies; and (5) use of appropriate height limits, spacing, and varieties for shrub and groundcover vegetation.

- **Brush Management Zone 2.** This zone would be implemented on applicable public and private areas located between the outside edge of Zone 1 and 100 feet outward, and would generally include the following elements: (1) temporary irrigation for vegetation establishment (and permanent irrigation of landscaped retaining walls if proposed); (2) use of approved plant species, with local plant/seed sources to be used if available; (3) limitations on tree planting densities (clusters of no more than three) and spacing (minimum 20-foot separation between cluster canopies); (4) use of appropriate height limits, spacing, and varieties for shrub and groundcover vegetation (including understory shrubs to avoid any “fire laddering” effects); (5) provision of appropriately spaced “shrub-free avenues” to provide slope access; and (6) prohibition of shrub hedging.

The described brush management and (if applicable) architectural measures would be implemented as appropriate during Project site development to ensure adequate fire protection. With implementation of the Project FPP and related measures, as part of and in conformance with associated regulatory requirements (including applicable elements of the CFC, CBC, and CRC, as well as SB 1241), potential Project-related impacts from wildfire hazards would be less than significant.

5.13.4 Level of Significance Prior to Mitigation

A. Routine Transport of Hazardous Materials

Based on the federal, state, and local regulations, impacts related to the routine transport, use, and/or disposal of hazardous materials during Project construction and operation would be less than significant.

B. Routine Use and Accidental Release of Hazardous Materials

Impact 5.13-1a: Impacts related to the routine use and accidental release of hazardous materials have been identified for the Project and are considered to be potentially significant.

C. Hazards to Schools

Impact 5.13-1b: Impacts related to hazards to schools have been identified for the Project and are considered to be potentially significant.

D. Existing Hazardous Materials Sites

Impact 5.13-1c: Impacts related to listed hazardous sites have been identified for the Project and are considered to be potentially significant.

E. Airport Hazards

Impact 5.13-2: Potentially significant impacts could result due to the Project’s location within the Overflight Notification Area for both Brown Field and Tijuana International Airport.

F. Emergency Response and Evacuation Plans

No significant impacts related to emergency evacuation plans have been identified for the Project.

G. Wildland Fires

No significant impacts related to wildland fire hazards have been identified for the Project.

5.13.5 Mitigation Measures

Development of the UID site would occur as future applicants apply for various permits. The measures below identify that a future applicant would be responsible for the implementation of the mitigation measures.

A. Routine Transport of Hazardous Materials

No mitigation measures are required.

B. Routine Use and Accidental Release of Hazardous Materials

Impacts related to the routine use and accidental release of hazardous materials are considered to be potentially significant (Impact 5.13-1a). Implementation of Mitigation Measure 5.13-1 would reduce impacts to less than significant levels:

5.13-1 Hazardous Risk Reduction Measures. Prior to the issuance of any grading permit for the UID, the applicant shall verify that the applicable recommendations in the Hazardous Materials Technical Study prepared by Ninyo & Moore, dated September 4, 2014, have been incorporated into the final project design and construction documents to the satisfaction of the City of Chula Vista Engineer. These requirements include the following:

- A Site Safety Plan shall be prepared and implemented prior to initiation of construction activities within the boundaries of the project area to reduce potential health and safety hazards to construction workers and the public.
- Appropriate references regarding the potential to encounter contaminated soil, illegal dumping, burn sites, and USTs shall be included in construction specifications. In the event that USTs or undocumented areas of contamination (including lead-based painted [LBP] and treated wood) are encountered during construction activities, work shall be ceased until appropriate health and safety procedures are implemented and appropriate notifications are made. A contingency plan shall be prepared to address contractor procedures for such an event, including a determination of whether regulatory notification is required. The associated remediation and removal activities shall be conducted by trained, licensed/certified personnel, and in accordance with pertinent local, state, and federal regulatory guidelines, under the oversight of the appropriate regulatory agency.

- If any USTs are encountered during construction, construction activities in the immediate area of the UST shall cease until the UST can be removed under permit by the DEH and other regulatory agency, as appropriate. The soil and groundwater within the vicinity of the USTs should be adequately characterized and remediated, if necessary, to a standard that would be protective of water quality and human health, based on future site use.
- During construction activities, it may be necessary to excavate existing soil, or to bring fill soils to the project area from off-site locations. If soil contamination is suspected during construction, sampling shall be performed in those areas. Prior to any excavation or removal of contaminated soil not suitable for on-site reuse, it shall be properly characterized for disposal at an off-site facility. Fill soils also shall be evaluated or sampled to document that imported soil does not contain unacceptable concentrations of contamination. If potentially hazardous waste is observed in the project area (e.g., from illegal dumping), the waste should be appropriately disposed of prior to initiating construction activities.

C. Hazards to Schools

Potential Project impacts related to hazards to schools are considered to be potentially significant (Impact 5.13-1b). Implementation of Mitigation Measure 5.13-1 would reduce impacts to less than significant levels.

D. Existing Hazardous Materials Sites

Potential impacts related to listed hazardous sites are considered to be potentially significant (Impact 5.13-1c). Implementation of Mitigation Measure 5.13-1 would reduce impacts to less than significant levels.

E. Airport Hazards

Potentially significant impacts could result due to the Project's location within the Overflight Notification Area for both Brown Field and Tijuana International Airport (Impact 5.13-2). Implementation of Mitigation Measures 5.13-2a and 5.13-2b would reduce impacts to less than significant levels:

5.13-2a Airport Overflight Agreement. Prior to approval of the first Final Map for those areas within the Overflight Notification Area for Brown Field, the applicant shall record the Airport Overflight Agreement with the County Recorder's office, and provide a signed copy of the recorded Airport Overflight Agreement to the City's Development Service Director (or their designee).

5.13-2b Notice to Potential Buyers. The Project applicant will provide notification to potential buyers of properties within the Overflight Notification Area for Brown Field and/or the Tijuana International Airport.

F. Emergency Response and Evacuation Plans

No mitigation measures are required.

G. Wildland Fires

No mitigation measures are required.

5.13.6 Level of Significance After Mitigation

A. Routine Transport of Hazardous Materials

Impacts associated with routine transport, use, and/or disposal of hazardous materials would be less than significant without mitigation.

B. Routine Use and Accidental Release of Hazardous Materials

Potentially significant impacts related to the routine use and accidental release of hazardous materials (Impact 5.13-1a) would be reduced to less than significant levels with implementation of Mitigation Measure 5.13-1 because the mitigation would require implementation of hazardous risk reduction measures to ensure safe handling and transport of hazardous materials during construction of the Project.

C. Hazards to Schools

Potentially significant impacts related to hazards to schools (Impact 5.13-1b) would be reduced to less than significant levels with implementation of Mitigation Measure 5.13-1 because the mitigation would require safe handling and transport of hazardous materials near schools during construction of the Project.

D. Existing Hazardous Materials Sites

Potentially significant impacts related to listed hazardous sites (Impact 5.13-1c) would be reduced to less than significant levels with implementation of Mitigation Measure 5.13-1 because the mitigation would require implementation of hazardous risk reduction measures to ensure safety during construction of the Project.

E. Airport Hazards

Potentially significant impacts related to airport hazards (Impact 5.13-2) would be reduced to less than significant with implementation of Mitigation Measures 5.13-2a and 5.13-2b, which would require noticing of airport hazards as required by law.

F. Emergency Response and Evacuation Plans

Impacts associated with emergency response and evacuation plans would be less than significant without mitigation.

G. Wildland Fires

Impacts associated with wildland fires would be less than significant without mitigation.

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