4.3 HAZARDS AND HAZARDOUS MATERIALS

This assessment focuses on the potential public health effects associated with exposure to hazardous materials during implementation of the proposed Master Plan projects. Hazardous materials uses at the campus, identified in the Hazardous Materials Business Plan (HMBP) (Mission College, 1996), are summarized in this section. In addition, this section summarizes past land uses at the campus and the results of a regulatory database search to identify permitted hazardous materials uses[1] as well as environmental cases[2] and spill sites[3] at the campus and within ASTM specified search distances[4] of the campus where soil or groundwater has been affected or is suspected to be affected by a chemical release(s) from past or present site uses (EDR, 2008). This information is used, along with review of available documents addressing a previous leaking underground storage tank (UST) at the campus, to assess the potential to encounter hazardous materials in the soil and groundwater and to encounter hazardous building materials during demolition and renovation of existing buildings. A description of each database reviewed for the database search and its publication date is included in Appendix D. Regulatory requirements related to investigation and cleanup of environmental cases; assessment and abatement of hazardous building materials during demolition and renovation; repairs and renovations to hazardous materials storage facilities; closure of USTs; and hazardous materials handling during operation are also summarized below.

4.3.1 ENVIRONMENTAL SETTING

Hazardous *materials*, defined in Section 25501(o) of the California Health and Safety Code, are materials that, because of their "quantity, concentration, or physical or chemical characteristics, pose a substantial present or potential hazard to human health and safety or to the environment if released to the workplace

---

[1] Permitted hazardous materials uses are facilities that use hazardous materials or handle hazardous wastes but comply with current hazardous materials and hazardous waste regulations.

[2] Environmental cases are sites suspected of releasing hazardous substances or that have had cause for hazardous materials investigations and are identified on regulatory agency lists. These are sites where soil and/or groundwater contamination is known or suspected to have occurred. They are generally identified due to site disturbance activities such as removal of an underground storage tank, a spill of hazardous substances, or excavation for construction.

[3] Spill sites are locations where a spill has been reported to the state or federal regulatory agencies. Such spills do not always involve a release of hazardous materials.

[4] The term "ASTM specified search distances" (American Society for Testing and Materials) refers to search distances required by ASTM Standard 1527-05 for the conduct of phase I environmental site assessments. The specified search distances range from only the property under evaluation to one mile from the property boundary. The environmental database review report (EDR, 2008) lists the search distance for each database reviewed.

or environment". Hazardous materials have been and are commonly used in commercial, agricultural and industrial applications as well as in residential areas to a limited extent. A *waste* is any material that is relinquished, recycled, or inherently waste-like. Title 22 of the California Code of Regulations, Division 4.5, Chapter 11 contains regulations for the classification of hazardous wastes (22CCR 66261.1, et seq). A waste is considered a *hazardous waste* if it is toxic (causes human health effects), ignitable (has the ability to burn), corrosive (causes severe burns or damage to materials), or reactive (causes explosions or generates toxic gasses) in accordance with the criteria established in Article 3. Articles 4 and 4.1 also list specific hazardous wastes. Waste categories including Resource Conservation and Recovery Act (RCRA) hazardous waste, non-RCRA hazardous waste, extremely hazardous waste, and special waste are identified in Article 5. If improperly handled, hazardous materials and wastes can result in public health hazards, if released to the soil, groundwater, or air (in the form of vapors, fumes, or dust).

EXISTING HAZARDOUS MATERIALS USES AND HAZARDOUS WASTE GENERATION

As required by law, the District maintains an HMBP, which lists the chemicals stored and used at Mission College as a part of normal business operations (Mission College, 1996). The college stores chemicals in a variety of areas, including the Central Plant and several departments within the Main Building. A list of hazardous materials stored and their hazard categories is presented in **Table 4.3-1**. The HMBP identifies one 10,000-gallon UST containing diesel fuel near the west wall of the Central Plant. The tank and associated piping are double walled and have a continuous interstitial monitoring system for leak detection. The UST was installed to replace a 20,000 gallon diesel UST removed in 1992 (discussed below).

TABLE 4.3-1

HAZARDOUS MATERIALS USED AT CENTRAL POWER PLANT AND MAIN BUILDING AND THEIR HAZARD CATEGORY

Location	Hazardous Material	Hazard Category
Central Power Plant	Diesel	Combustible Liquid
	Acetylene	Flammable Gas
	Oxygen	Non-Flammable Gas
Main Building	Acetylene	Flammable Gas
	Oxygen	Non-Flammable Gas
	Helium	Non-Flammable Gas

A number of chemicals are also used in the biology and chemistry laboratories in the main building and in the art department and model building. Acetylene, a flammable gas, is stored at quantities up to 873 cubic feet, and all other chemicals are stored at quantities less than threshold limits for inclusion in the HMBP.

Based on the environmental database review (EDR, 2008), Mission College is a classified as a small quantity generator of hazardous wastes[5] under RCRA because of the quantity of hazardous wastes produced by the Chemistry department. The environmental database did not identify any noted violations of RCRA at the College. Waste types that have been manifested for off-site disposal include photochemicals/photo processing wastes; off-specification, aged, or surplus organics; inorganic solid wastes; PCB-containing materials; low pH liquids with metals; laboratory waste chemicals; liquids with greater than 20 mg/L of mercury; liquids with greater than 500 mg/L of lead; alkaline solutions without metals; liquids with greater than 1,000 mg/L of halogenated organic compounds; waste oil and mixed oil; and contaminated soil from site clean-ups.

There are six small storage sheds located to the northwest of the power plant. Materials stored in these sheds include some hazardous materials and fire supplies as well as custodial equipment (tables and chairs), emergency equipment, and irrigation supplies.

MISSION COLLEGE EMERGENCY RESPONSE PROCEDURES

The HMBP (Mission College, 1996) includes an emergency response plan for hazardous materials releases. In accordance with this plan, notification in the event of a hazardous materials release includes activation of local alarm systems and notification of on-site responders; notification of appropriate local authorities (call 911); and notification of the State Office of Emergency Services. The emergency response plan specifies that the Emergency Procedures Manual for the college contains evacuation routes and procedures for area and building evacuations as well as identification of preplanned assembly areas. A spill cart and absorbent materials are maintained for containment and cleanup of hazardous materials spills. The Emergency Response Plan is maintained at the President's office and is available for review by the fire department.

All college personnel are trained in internal alarm/notification requirements, evacuation procedures, external emergency response organization notification requirements, and location and content of the Emergency Response Plan. Chemical handlers are also trained in safe methods for handling and storage of hazardous materials, proper use of personnel equipment, specific hazards of each chemical they could be exposed to, and locations and proper use of fire and spill control equipment. Emergency response team

[5] Small quantity generators are those that produce more than 100 kg and less than 1,000 kg of hazardous waste during any calendar month.

members are also trained in shut down of operations; use, maintenance, and replacement of emergency response equipment; and emergency response procedures (updated at least annually). The college maintains training records for each employee.

POTENTIAL PRESENCE OF HAZARDOUS MATERIALS IN SOIL AND GROUNDWATER

Soil or groundwater contamination could occur at a proposed Master Plan project site due to previous land uses or a chemical release at an environmental case in the vicinity of the planned project, either at the campus or off-site. Properties with soil contamination would not likely affect the project unless the contamination extended onto the project site; thus, only adjacent properties with soil contamination would have the potential to affect soil quality at a project site. However, groundwater plumes can migrate over long distances and, in general, groundwater contamination within ASTM-specified search distances of the campus would be considered to have the potential to affect groundwater quality at the campus, although it would be necessary to review site specific conditions to evaluate the potential for this to occur.

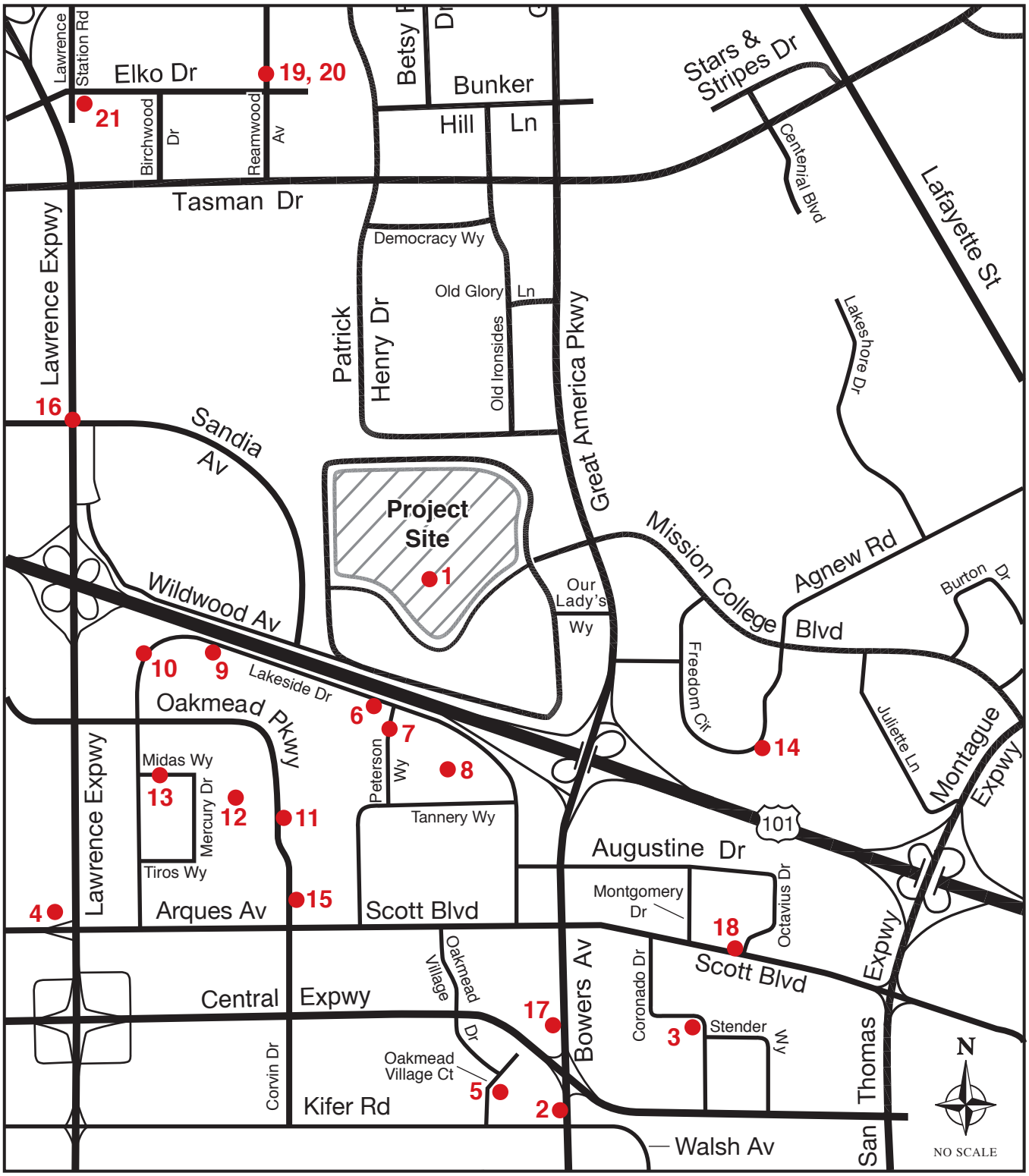
Previous Land Uses

Historic aerial photographs were reviewed to identify historic land uses at the campus (Orion Environmental Associates, 2008). Based on this review, the Mission College campus was used for agricultural purposes from sometime prior to 1954 (the earliest aerial photograph reviewed) through approximately 1976 when construction of the main building began. An airstrip is evident on the property immediately to the west of the Mission College location in the 1954 aerial photograph.

Environmental Database Review

Environmental cases identified by the environmental database review (EDR, 2008) at Mission College and within ASTM-specified search distances of the campus are summarized in Appendix D (Table D-1 and Figure D-1). One of the identified cases is located at the campus and the remaining cases are located off-site as discussed below. **Figure 4.3-1** shows the locations of these environmental cases.

Mission College. Mission College is listed in the state Leaking Underground Storage Tank (LUST) and Santa Clara County Fuel Leak Site Activity Report (HIST-UST) databases because a release of diesel fuel was noted when a 20,000-gallon UST and 100 feet of associated pipeline were removed in 1992. Total petroleum hydrocarbons as diesel (TPHd) was detected at 430 milligrams per kilogram (mg/kg) in a soil sample from beneath the fuel lines during confirmation soil sampling required for the UST removal (HLA, 1992). Based on these results, soil containing diesel fuel was removed from the fuel line trench, and a confirmation soil sample from the newly excavated area did not contain detectable levels of TPHd. Soil samples from the UST and pipeline excavation contained toluene at low concentrations ranging from



Source: EDR, Orion Environmental Associates (2008)

5 micrograms per kilogram (ug/kg) to 29 ug/kg. A soil sample from the pipeline excavation contained low levels of ethylbenzene (18 ug/kg) and xylenes (86 ug/kg).

The RWQCB has published guidelines for the evaluation of chemicals commonly found in soil or groundwater where a release of hazardous materials has occurred, referred to as environmental screening levels (RWQCB, 2005). These screening levels, described below, are conservative estimates of safe levels of a chemical that a person could be exposed to in soil and groundwater. If the concentration of a chemical in the soil or groundwater is below the environmental screening level, then it can be assumed that the chemical would not pose a health risk to the person. The concentrations of chemicals identified in the excavation samples are well below residential environmental screening levels for toluene (2,900 ug/kg), ethybenzene (3,300 ug/kg), and xylenes (2,300 ug/kg) (RWQCB, 2005), and have likely declined overtime due to natural attenuation.[6]

TPHd, benzene, toluene, ethylbenzene, and xylenes were not detected in a grab groundwater sample from the UST excavation. The Santa Clara Valley Water District required no further action and provided regulatory closure for this case in 2000 (SCVWD, 2000). In 1993, Mission College reported a spill of 3 gallons of diesel to land due to equipment leakage.

Off-Site Environmental Cases. Although there are 20 additional environmental cases within ASTM-specified search distances, four are located to the north of the campus in the estimated downgradient direction, and would not have the potential for affecting groundwater quality at the campus.[7] The remaining 16 sites are all located to the south-southeast in the estimated upgradient direction and depending on conditions at the site, would have the potential to affect groundwater quality at the campus.

The closest upgradient off-site case (Guidant Corporation at 3200 Lakeside Drive) is located across Highway 101, approximately 0.2 mile to the south of the campus. Because all of the off-site environmental cases are 0.2-mile or further from the campus they would have a low potential to affect soil quality at the campus. Groundwater at the site has historically been encountered at approximately 14 feet below ground surface (HLA, 1992). None of the Master Plan projects would require excavation below the groundwater table and groundwater dewatering would not be required. Therefore, the Master Plan

---

[6] Natural attenuation is the reduction in the mass or concentration of a compound in groundwater over time or distance due to naturally occurring physical, chemical, and biological processes such as biodegradation, dispersion, dilution, adsorption, and volatilization

[7] Groundwater generally flows from a higher to a lower elevation, and the difference in elevation is referred to as the groundwater gradient. Because the sites discussed would be located in an area where the groundwater would be at a lower elevation than the campus, it is not likely that groundwater would flow from these locations to the campus.

projects would not be affected by potential groundwater contamination and these cases are not further described.

HAZARDOUS BUILDING MATERIALS

Some building materials commonly used in older buildings and utilities could present a public health risk if disturbed during an accident or during demolition or renovation of an existing building, or during removal of utilities. Hazardous building materials commonly include asbestos-containing materials, electrical equipment such as transformers and fluorescent light ballasts that contain polychlorinated biphenyls (PCBs) or di(2-ethylhexyl) phthalate (DEHP), fluorescent lights containing mercury vapors, and lead-based paints. If removed during demolition of a building or utilities, or disturbed during renovation, these materials would require special disposal procedures.

Asbestos-Containing Materials. Asbestos is a common name for a group of naturally occurring fibrous silicate minerals that are made up of thin but strong, durable fibers. Because of its physical properties, asbestos was commonly used until the 1970s as a building material, including use as insulation materials, shingles and siding, roofing felt, floor tiles, and acoustical ceiling material. Transite pipe, constructed of an asbestos-cement product, has also historically been used in HVAC ducts and water pipes, as well as for chimney or flue material to vent gas-fired appliances. Asbestos is a known carcinogen and presents a public health hazard if it is present in friable (easily crumbled) form. Long-term, chronic inhalation of high levels of asbestos can cause lung diseases such as asbestosis, mesothelioma, and/or lung cancer (Agency for Toxic Substances and Disease Registry 2007). Friable, finely divided and powdered wastes containing greater than 1 percent asbestos is classified in the California Code of Regulations as a hazardous waste that requires disposal at a licensed landfill (22 CCR 66261.24). Wastes containing non-friable asbestos are not considered hazardous and are not subject to regulation under 22 CCR 66001, et seq.

Polychlorinated Biphenyls. PCBs are mixtures of synthetic organic chemicals with physical properties ranging from oily liquids to waxy solids. Because of their nonflammability, chemical stability, high boiling point, and electrical insulating properties, PCBs were used in hundreds of industrial and commercial applications, including use in electrical, heat transfer, and hydraulic equipment; as plasticizers in paints, plastic, and rubber compounds; in pigments, dyes, and carbonless copy paper; and many other applications. More than 1.5 billion pounds of PCBs were manufactured in the United States before production ended in 1977 (USEPA 2005). PCBs are a known human carcinogen; they are highly toxic substances that remain persistent in the environment, accumulate in biological systems, interfere with the reproductive system, and act as an immuno-suppressant.

Under Section 6(e) of the Toxic Substance Control Act (TSCA) (15 USC 2601, et seq.), Congress began regulating the use and manufacturing of PCBs in 1976, legislating "cradle to grave" (i.e., from manufacture to disposal) management of PCBs in the United States. Under the TSCA, the USEPA began to impose bans on PCB manufacturing and sales and on most PCB uses in 1978. TSCA requires incineration or an alternative destruction method for oils containing PCB concentrations greater than 50 ppm and requires that free liquids be drained from electrical equipment prior to disposal, and that the liquids are appropriately disposed of. In California, PCB wastes are regulated as hazardous waste if the PCB concentration exceeds 50 ppm or the soluble concentration exceeds 5 ppm as oily liquid (22 CCR 66261.24). Most fluorescent light ballasts manufactured before 1978 contain PCBs in their capacitor and potting material. Ballasts manufactured after January 1, 1978, do not contain PCBs and should be labeled as such on the ballast. Approved disposal methods for PCB-containing ballasts depend on the condition of the ballast and the PCB content of the potting material and capacitor oil. If the PCB concentration of the potting material is less than 50 ppm and the ballast contains a small, intact, non-leaking capacitor, the ballast may be disposed of at a municipal landfill. In general, all leaking ballasts and ballasts containing potting material with PCB concentrations greater than or equal to 50 ppm must be incinerated or destroyed by alternative methods, disposed of in a hazardous waste landfill, or decontaminated using approved methods.

Di(2-ethylhexyl) phthalate. Between 1979 and the early 1990s, DEHP was used in place of PCB as a di-electric fluid in some fluorescent light ballasts and other electrical equipment (Green Lights Recycling 2007). DEHP is classified as a probable human carcinogen by the U.S. Department of Health and Human Services and as a hazardous substance by the USEPA. Because of this, ballasts containing DEHP must be legally disposed of; ballast incineration or a combination of ballast recycling and incineration are recommended for complete destruction of DEHP.

Mercury. Spent fluorescent lamps and tubes commonly contain mercury vapors and are considered a hazardous waste in California (22 CCR 66261.50). When these lamps or tubes are placed in the trash and collected for disposal, they can be broken and release mercury to the environment. The mercury can be absorbed through the lungs into the bloodstream of people nearby and can be washed by rain into waterways. The mercury in urban storm water sediment results in part from improperly discarded fluorescent lamps and tubes (CIWMB 2007). Approximately 370 pounds of mercury were released in California in 2000 due to electric lamps and tubes breaking during storage and transportation. It is estimated that nearly 75 million waste fluorescent lamps and tubes are generated annually in California and these lamps and tubes contain more than half a ton of mercury. Because they are considered a hazardous waste, all fluorescent lamps and tubes must be recycled or taken to a universal waste handler.

Lead-Based Paint. Lead-based paint was commonly used prior to 1960 and is likely present in buildings constructed before 1960. Lead is toxic to humans, particularly young children, and can cause a range of

human health effects, depending on the level of exposure. When adhered to the surface of the material on which it is painted, lead-based paint poses little health risk. Where the paint is delaminated or chipping, the paint can cause a potential threat to the health of young children or other building occupants who may ingest the paint. Lead dust could also present public health risks during demolition of a structure with lead-based paint. Lead-based paint that has separated from a structure may also contaminate nearby soil. Lead-based paint is defined by 17 CCR 35033 as paint containing lead at a concentration of 5,000 mg/kg (0.5 percent) or greater. Separated paint would be considered a hazardous waste if the lead concentration exceeded state or federal hazardous waste criteria. For total lead, the state total threshold limit of 1,000 mg/kg applies. For soluble lead, measured according to regulatory specified methods, the state soluble threshold limit concentration of 5 mg/L and federal toxicity regulatory level of 5 mg/L apply (22 CCR 66261.24).

4.3.2 HAZARDOUS MATERIALS REGULATIONS

REGULATORY FRAMEWORK OVERVIEW

Hazardous materials and hazardous wastes are extensively regulated by federal, state, and local regulations, with the major objective of protecting public health and the environment. In general, these regulations provide definitions of hazardous materials; establish reporting requirements; set guidelines for handling, storage, transport, remediation, and disposal of hazardous wastes; and require health and safety provisions for workers and the public. Regulatory agencies also maintain databases of sites that handle hazardous wastes or store hazardous materials in USTs, and of environmental cases where hazardous materials may have been released to the soil and/or groundwater.

The major federal, state, and regional agencies enforcing these regulations include the U.S. Environmental Protection Agency (USEPA) (federal); the DTSC and the State Water Resources Control Board (SWRCB) (state); the RWQCB and the Bay Area Air Quality Management District (BAAQMD) (regional). A more detailed description of the federal, state and regional hazardous materials regulatory framework is presented in Appendix D.

The Santa Clara Fire Department Hazardous Materials Division, as a Certified Unified Program Agency (CUPA), is the local agency with primary responsibility for implementing state environmental programs in Santa Clara. The six programs implemented include Above Ground Storage Tanks, California Accidental Release Program (CalARP), Hazardous Materials Management Plans/Business Plans, Hazardous Waste Generator, On-Site Treatment of Hazardous Wastes, and Underground Storage Tanks. The Santa Clara County Department of Environmental Health implements the Local Oversight Program for oversight of investigation and cleanup of leaking underground storage tanks in Santa Clara. Solvent and toxic cases are typically enforced by the RWQCB, DTSC, or USEPA, but the Santa Clara Valley

Water District Groundwater Management Unit may provide peer review for these cases through the Solvent and Toxic Cleanup Liaison Program.

CITY OF SANTA CLARA HAZARDOUS MATERIALS REGULATIONS

Hazardous materials regulations enforced by the Santa Clara Fire Department Hazardous Materials Division are contained in the Santa Clara Municipal Fire and Environmental Code which incorporates the 2006 International Fire Code and various portions of the California Health and Safety Code related to the Certified Unified Program Agency programs enforced by the City of Santa Clara. Hazardous materials regulatory requirements relating to storage and use of hazardous materials and closure or remodeling of hazardous materials facilities, including USTs, are discussed below.

Hazardous Materials and Hazardous Waste Management

The Uniform Fire Code, Article 80, includes specific design requirements for the safe storage and handling of hazardous materials. These requirements reduce the potential for a release of hazardous materials and for mixing of incompatible materials that could pose a public health risk. The following design features would reduce the potential for a release of hazardous materials that could affect public health or the environment:

- Separation of incompatible materials
- Spill control in all storage, handling, and disposal areas
- Separate secondary containment for each chemical storage system, with a capacity sufficient to hold the contents of the entire tank, plus the volume of water necessary to supply the fire suppression system for a period of 20 minutes in the event of a catastrophic spill

To allow local agencies to plan appropriately for a chemical release, fire, or other incident, businesses in Santa Clara which store hazardous materials at amounts greater than threshold quantities are required to submit a HMBP to the Santa Clara Fire Department Hazardous Materials Division as the local CUPA Agency. Threshold quantities are 500 pounds for solids, 55 gallons for liquids, and 200 cubic feet for compressed gases. In Santa Clara, the HMBP must include:

- A description of business activities summarizing hazardous materials related activities at the facility
- Identification of the business owner/operator along with the environmental contact and primary and secondary emergency contacts

- An inventory statement for hazardous materials including Department of Transportation (DOT) hazard class, storage location; common name; hazardous components for mixtures; maximum daily and average daily quantity on-site; largest container size; storage temperature and pressure; and hazard category for each hazardous material

- An inventory statement for hazardous wastes including the above information as well as the waste stream name and annual waste amount for each hazardous waste

- A site plan including the facility lay out and associated streets; outside hazardous materials storage or use areas; hazardous materials loading/unloading areas; parking lots; internal roads; storm and sanitary sewer drain inlets; wells for monitoring underground storage tank systems; and primary and alternate evacuation routes, exits, and primary and alternate staging areas

- A storage map showing the general purpose of each section/area within each building; the location; location of each hazardous material/waste storage, dispensing, use, or handling area; the capacity of tanks and common name of the hazardous material stored in each tank; entrances to and exits from each building and hazardous material/waste room/area; location of each utility emergency shut off point; and location of each monitoring system control panel

- An Emergency Response/Contingency Plan including an evacuation plan; emergency and post-incident contacts; contact information for emergency resources such as the poison control center and nearest hospital and any special arrangements made regarding coordination of emergency services; a description of emergency procedures; required post-incident reporting and recording; identification of areas with vulnerability to earthquake-related ground motion; procedures of hazard mitigation , prevention, and abatement; and an inventory of emergency equipment

- An Employee Training Plan addressing training provided for all employees as well as those involved in chemical handling or emergency response

All persons at the facility qualified to serve as emergency coordinators must be thoroughly familiar with the contents and use of the HMBP, with the operations and activities of the facility, and with the locations of hazardous materials records maintained at the facility. In addition, all facilities that handle hazardous materials must maintain records associated with the management of hazardous materials and copies of inspection check sheets or logs must be submitted with the HMBP.

To ensure accuracy of hazardous materials storage over time, facilities with an HMBP must submit a Hazardous Materials Business Plan Certification or a copy of the current hazardous materials inventory annually on or before March 1. In addition, the HMBP must be updated/revised within 30 days if: 1) there is more than a 100 percent increase in the quantity of a previously disclosed material; 2) the facility

begins handling a previously undisclosed material at or above HMB reporting thresholds; 3) the facility changes address; 4) ownership of the facility changes; 5) there is a change of the business name; or 6) the local CUPA agency determines if that the HMBP is deficient in any way. Regardless, the entire HMBP must be reviewed every three years to determine whether revision is needed and certification of this review must be submitted to the local CUPA agency along with a copy of the revised HMBP if changes were made.

Facilities which generate hazardous wastes must also obtain a hazardous waste generator permit from the Santa Clara Fire Department Hazardous Materials Division. Hazardous wastes generated at the site would also be listed in the HMBP as described above.

Underground Storage Tanks

Facilities with underground storage tanks must obtain and underground storage tank permit from the Santa Clara Fire Department Hazardous Materials Division. The Santa Clara Fire Department underground storage tank installation guidelines incorporate the requirements of Articles 1, 79, and 80 of the 2000 Uniform Fire Code; City of Santa Clara Amendments to the Uniform Fire Code; National Fire Protection Association Standard 30; and Title 23 of the California Code of Regulations, Division 3, Chapter 16.

In accordance with these requirements, a site owner planning to install an underground storage tank must apply for a permit to install. The permit application includes a hazardous materials business plan for the tank and a monitoring and response plan that describes actions to be taken in the event of a leak. The tank must have secondary containment to contain a potential leak, bear a label from an independent testing organization documenting design and manufacture information, and be equipped with a monitoring system for leak detection. The Santa Clara Fire Department inspects the tank and secondary containment systems for tightness and the overfill protection and monitoring systems for operability prior to installation.

Closure or Remodeling of Hazardous Materials Storage Facilities

The Santa Clara Municipal and Fire and Environmental Code also specifies requirements for closure of hazardous materials storage facilities. In accordance with this code, businesses which handle hazardous materials or wastes above threshold quantities are required to submit a closure plan to the Santa Clara Fire Department when the hazardous materials handling facility will no longer be used. The closure plan is required to demonstrate that hazardous materials that were stored, dispensed, handled, or used at the facility have been transported, disposed of, or reused in a manner that eliminates the need for future maintenance of the facility and minimizes any threat to public health and safety. The plan must include a description of the size and type of facility to be closed (including a site plan); the chemicals used at the

facility; the processes conducted at the facility; equipment, tanks, and other items to be removed; repairs or resurfacing to be conducted; sampling and analysis to be conducted; and planned disposition of hazardous materials and wastes from the facility.

At the time of application, the Santa Clara Fire Department will conduct a site review inspection to verify conditions at the facility. All tanks, vessels, piping, and other containers would need to be emptied prior to removal, and their contents properly disposed of and piping would need to be tested for integrity. Surface, soil, or groundwater samples could also be required to demonstrate whether a release of hazardous materials had occurred, and if contamination is indicated, the owner of the facility is required to submit a remedial action report to the Santa Clara County Health Department, Regional Water Quality Control Board, or Department of Toxic Substances Control with a projected completion date. The Santa Clara Fire Department requires confirmation of compliance with all items in the closure plan, and submittal of appropriate documentation, before final closure is granted for the facility.

Facilities that store hazardous materials at quantities less than the threshold quantities, but are required to be permitted for hazardous waste must provide documentation (waste manifests) to the Santa Clara Fire Department that demonstrate proper disposal of all hazardous waste and materials associated with the business.

Underground Storage Tank Closures

In accordance with the California Health and Safety Code, Division 20, Chapters 6.7 and 6.75, Santa Clara Fire Department Hazardous Materials Division has the responsibility to implement state UST regulations and to oversee investigation and cleanup of UST leak sites in Santa Clara as the Certified Uniform Program Agency. This agency implements state UST corrective action regulations specified in Title 23 if the California Code of Regulations, Chapter 16, Article 7. The RWQCB still retains authority to approve case closure.

For removal of a UST, the Santa Clara Fire Department Hazardous Materials Division requires an approved closure plan and permit for removal of the UST. Prior to removal, the contractor must notify the BAAQMD and Underground Services Alert, and must also prepare a health and safety plan. Following removal of the tank, soil samples must be taken from the tank excavation and groundwater must also be sampled if present in the tank excavation to evaluate whether additional action is required. If indicated by the analytical results, the case could be referred to the local oversight program or the RWQCB for additional investigation and possibly cleanup. Soil removed from the UST excavation must be stored on bermed plastic and covered while on-site, and legally disposed of. The Santa Clara Fire Department Hazardous Materials Division inspects all UST removals and confirmation sampling.

ENVIRONMENTAL SCREENING LEVELS

The California Environmental Protection Agency and the RWQCB have published guidelines for the evaluation of chemicals commonly found in soil or groundwater where a release of hazardous materials has occurred. These guidelines include the California Human Health Screening Levels (CHHSLs) published by the California Environmental Protection Agency (California Environmental Protection Agency, 2005) and ESLs published by the RWQCB (RWQCB, 2005). These screening levels are conservative estimates of safe levels of a chemical that a person could be exposed to in soil and groundwater. If the concentration of a chemical in the soil or groundwater is below the CHHSL or ESL, then it can be assumed that the chemical would not pose a health risk to a person. Because workers and residents would experience different exposures to soil and groundwater, there are different CHHSLs and ESLs for residential and industrial land uses. In general, residents would be expected to have the longest exposure to soil and therefore residential CHHSLs and ESLs are generally lower than industrial screening levels. However, these screening levels are based on conservative exposure assumptions, and it is possible to conduct a more detailed risk assessment using project-specific exposure assumptions to develop a higher concentration that would be considered safe.

For a contaminated property, approved land uses are based on the level of chemical contamination. For unrestricted land use, chemical levels must be less than residential screening levels, or residential cleanup levels determined by a site specific risk assessment. Where concentrations greater than this are present, but considered safe for the land use at the property, a deed restriction would be placed on the property to prevent changes in land use without further assessing health risks associated with the change, and implementing actions to ensure that no unacceptable health risks would occur as a result of that land use change.

WASTE CLASSIFICATION CRITERIA

In accordance with 22 CCR 66261.20, et seq., excavated soil would be classified as a hazardous waste if it exhibits the characteristics of ignitability, corrosivity, reactivity, or toxicity. A waste is considered toxic in accordance with 22 CCR 66261.24 if it contains any of the following:

- Total concentrations of certain substances at concentrations greater than the State total threshold limit concentration (TTLC)
- Soluble concentrations greater than the State soluble threshold limit concentration (STLC)
- Soluble concentrations of certain substances greater than federal toxicity regulatory levels using a test method called the toxicity characteristic leaching procedure (TCLP)
- Specified carcinogenic substances at a single or combined concentration of 0.001 percent

A waste would be considered hazardous by State and federal regulations if the soluble concentration exceeds the TCLP level as determined by the TCLP method. Because the TCLP involves a 20-to-1 dilution of the sample, the total concentration of a substance in the soil would need to exceed 20 times the regulatory level for the soluble concentration to exceed the regulatory level in the extract. A waste would also be considered hazardous under State regulations if the soluble concentration of a substance exceeds the STLC determined by a waste extraction test, which involves a 10-to-1 dilution of the sample. Because of this, the total concentration of a substance would need to exceed 10 times the STLC for the soluble concentration to possibly exceed the STLC in the extract. A waste may also be classified as toxic if testing indicates toxicity greater than specified criteria.

4.3.3 POTENTIAL IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Based upon the criteria presented in Appendix G of the *CEQA Guidelines*, the project would result in potentially significant impacts if it would:

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

Definition, identification and determination of threshold levels of hazardous materials and wastes are provided in the Title 40 of the Code of Federal Regulations (40 CFR) and in Title 22 of the California Code of Regulations. In accordance with these regulations, a hazardous waste is a substance or combination of substances that because of its quantity, concentration or physical, chemical, or infectious characteristics may pose a substantial threat or potential hazard to human health or environment when improperly treated, stored, transported, disposed of, or otherwise managed. Determination of "substantial" hazard or "insignificant" levels of hazardous materials is performed by the regulatory agencies on a case-by-case basis, depending on the proposed uses, potential exposure, and degree and type of hazard.

As indicated in the Initial Study (Appendix A), the project is not located within an airport land use plan area or within two miles of a public use airport or in the vicinity of a private airstrip. The project would also not impair or physically interfere with an adopted emergency response or emergency evacuation plan. Mission College is not located within an area of high wildland fire risk, and would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Therefore, these topics are not discussed further.

CONSTRUCTION IMPACTS

Impact 4.3-1: Hazardous materials could be encountered in the soil during ground-disturbing activities associated with the Master Plan projects. (Potentially Significant)

Excavation of soil would be required for rebuild, renovation/expansion, and new construction projects (planned infrastructure upgrades, Hospitality Management, Main Building Replacement Buildings, Corporation Yard/Facilities Building, Child Care facility, Main Plaza Activity Center Building, MT Replacement Building, Main Plaza Canopy/Landscaping, Occupational Ed Building, Performing Arts Building, P.E. Addition Building, Southwest Parking Lot, Soccer Field, West Parking Lot, Indoor Pool, Opportunity Buildings, Mixed-Use/Faculty Housing, and Parking Garage). Because residual levels of contaminants are below environmental screening levels at the location of the former UST removal, and there are no identified environmental cases within close enough proximity to affect soil quality, there is a low potential to encounter hazardous materials in the soil during construction due to a chemical release from these sources. However, new environmental cases could be identified over time, and it will be necessary to update the environmental database review closer to construction of the Master Plan projects to update the evaluation of the potential to encounter contamination from an off-site source. In addition, as described in the Setting, the Mission College property was used for agricultural purposes prior to construction of the campus. Therefore, pesticides, which commonly include metals, were likely applied to the soil. If pesticides or metals residues remain at concentrations above California human health screening

levels or environmental screening levels, discussed in the Setting and listed in **Table 4.3-2**, construction workers, campus staff and students, and the public could be exposed to the contaminated soil. Depending on the nature and extent of the contamination encountered and whether or not proper precautions are implemented, this could potentially cause adverse health effects and unless proper precautions are implemented, such materials could cause adverse environmental effects if released to the environment. The soil may also require special disposal as a restricted or hazardous waste if metals concentrations exceeded the waste classification criteria listed in Table 4.3-2.

Exposure of construction workers, campus staff and students, or the public to hazardous materials in groundwater would not occur because the project would not require groundwater dewatering and would not involve the construction of facilities below the water table.

Potential impacts related to exposure to hazardous materials in soil and groundwater from past agricultural uses as well as previously unidentified sources would be *potentially significant* but mitigated to a less-than-significant level with implementation of the Mitigation Measures 4.3-1a through e. Mitigation Measure 4.3-1a will require updating the environmental database review within three months of the start of construction. Mitigation Measure 4.3-1b will require soil sampling to assess the potential presence of pesticides and metals in the soil, or chemicals from new sites identified by the updated database review, as well as implementation of regulatory requirements based on the results of the sampling. If concentrations of pesiticides or metals exceed screening levels, listed in Table 4.3-2 or the concentrations of other chemicals identified exceed their respective screening levels, Mitigation Measures 4.3-1c and 4.3-1d would be further required to reduce impacts related to exposure to hazardous materials in the soil to a less-than-significant level. These measures require implementation of a site health and safety plan and material disposal plan. Mitigation Measure 4.3-1e requires preparation of a contingency plan to address previously unidentified sources of contamination.

> **Mitigation Measure 4.3-1:** The following measures shall be required for any construction projects at Mission College that involve ground disturbance:
>
> a. The District shall retain a qualified professional to update the environmental database review within three months of the start of any construction activities that involve disturbance of greater than 50 cubic yards of soil. The qualified professional shall prepare a report summarizing the results of the environmental database review that assesses the potential for the site to affect soil quality at the Master Plan project site and identifies appropriate soil analysis to evaluate the potential for soil contamination at the Master Plan project site, if needed.

TABLE 4.3-2

SCREENING LEVELS AND WASTE CLASSIFICATION CRITERIA AND THEIR HAZARD CATEGORY

Parameter	Screening Level ESL mg/kg	Screening Level CHHSL mg/kg	Regulatory Level for Waste Classification TCLP mg/L	Regulatory Level for Waste Classification TTLC mg/kg	Regulatory Level for Waste Classification STLC mg/L
Pesticides					
2,4-Dichlorophenoxyacetic acid (2,4-D)	-	690	10	100	10
2,4,5-Trichlorophenoxypropionic acid (2,4,5-T)	-	550	2	10	1
Aldrin	0.032	0.033	-	1.4	0.14
Chlordane	0.44	0.43	0.03	2.5	0.25
Dichlorodiphenyldichloroethane (DDD)	2.3	2.3	-	1	0.1
Dichlorodiphenyldichloroethylene (DDE)	1.6	1.6	-	1	0.1
Dichlorodiphenyltrichloroethane (DDT)	1.6	1.6	-	1	0.1
Dieldrin	0.0023	0.035	-	8	0.8
1,4-Dioxane	0.0018	18	-	-	-
Dioxin	0.0000046	0.0000046	-	0.01	0.001
Endosulfan	0.0046	-	-	-	-
Endrin	0.00065	21	0.02	0.2	0.02
Heptachlor	0.014	0.13	-	4.7	0.47
Heptachlor Epoxide	0.015	-	-	-	-
Kepone	-	0.035	-	21	2.1
Lindane	-	0.5	0.4	4	0.4
Methoxylchlor	19	340	10	100	10
Mirex	-	0.031	-	21	2.1
Toxaphene	0.00042	0.46	0.5	5	0.5
Metals			-	-	-
Antimony	6.1	30	-	500	15
Arsenic	5.5	0.07	5.0	500	5.0
Barium	750	5,200	100.0	10000	100
Beryllium	4	150	-	75	0.75
Cadmium	1.7	1.7	1.0	100	1.0
Chromium	58	100,000	5.0	2500	5
Cobalt	10	660	-	8000	80
Copper	230	3,000	-	2500	25
Lead	150	150	5.0	1000	5
Mercury	3.7	18	0.2	20	0.2
Molybdenum	40	380	-	3500	350
Nickel	150	1,600	-	2000	20
Selenium	10	380	1.0	100	1.0
Silver	20	380	5.0	500	5
Thallium	1	5	-	700	7.0
Vanadium	110	530	-	2400	24
Zinc	600	23,000	-	5000	250

Notes:
ESL = Environmental Screening Level for Residential Land Use (RWQCB, 2005)
CHHSL = California Human Health Screening Level for Residential Land Use (Cal EPA, 2005)
TCLP = toxicity characteristic leaching procedure
TTLC = total threshold limit concentration
STLC = soluble threshold limit concentration
mg/kg = miligram per kilogram
mg/L = milligram per liter
- = criteria has not been established for this parameter

b. The District shall retain a qualified professional to conduct sampling to assess the presence and extent of chemicals in the soil for all Master Plan projects that require disturbance of soil. To evaluate the potential for presence of pesticides and metals, analysis shall include dioxins and furans, chlorinated herbicides, chlorinated pesticides, and California Title 22 metals at a minimum. If contamination from a nearby site is indicated by the environmental database review conducted in accordance with Mitigation Measure 4.3-1a, then additional analysis shall be conducted in accordance with the recommendations of the qualified professional. The District will be required to notify the regulatory agencies if the concentration of any chemical exceeded its respective screening level and shall request designation of the RWQCB or DTSC as the lead agency in accordance with Chapter 6.65 of Division 20 of the California Health and Safety Code. In general, the lead agency would be the RWQCB if there is sufficient groundwater contamination. The lead agency would be the DTSC if only soil quality were affected.

   In accordance with Section 25264 of the Health and Safety Code, the lead agency is required to supervise all aspects of the site investigation and remedial action conducted by the responsible party and for determining the adequacy of the site investigation and remediation activities at the site and the extent to which they comply with appropriate state and local laws, ordinances, regulations, and standards. Upon determining that a site investigation and remediation has been satisfactorily completed and that a permanent remedy to the release has been accomplished, the lead agency shall issue a certificate of completion certifying that applicable remedial action standards and objectives were achieved.

c. For Master Plan project sites where chemical concentrations exceed environmental screening levels, the District shall require the construction contractor to prepare and to implement a site safety plan, based on the results of sampling conducted as specified in Mitigation Measure 4.3-1b, identifying the chemicals present, potential health and safety hazards, monitoring to be performed during site activities, soils-handling methods required to minimize the potential for exposure to harmful levels of the chemicals identified in the soil, appropriate personnel protective equipment, and emergency response procedures.

d. For project sites where chemical concentrations exceed environmental screening levels, the District shall require the construction contractor(s) to prepare a material disposal plan, based on the results of sampling conducted as specified in Mitigation Measure 4.3-1b, for excess soil produced during construction activities. The plan shall specify the disposal method for soil, approved disposal site, and written documentation that the disposal site will accept the waste. The contractor shall be required to submit the plan to the District for acceptance prior to implementation. During construction, excess soil from new construction activities and reconfiguration of campus roadways and walkways shall be stockpiled and sampled to determine the appropriate disposal requirements in accordance with the hazardous waste classification and disposal regulations described in Appendix D. As described in this appendix, if the soil is not suitable for reuse, disposal at a regulatory permitted Class I, II, or III disposal facility will be required.

e. For all Master Plan project sites where soil excavation would occur, the District shall require the construction contractor(s) to have a contingency plan for sampling and analysis of potential hazardous materials and for coordination with the appropriate regulatory agencies, in the event that previously unidentified hazardous materials are encountered during construction. If any hazardous materials are identified, the contractor(s) shall be required to modify their health and safety plan to include the new data, conduct sampling to assess the chemicals present, and identify appropriate disposal methods. Evidence of potential contamination includes soil discoloration, suspicious odors, the presence of USTs, or the presence of buried building materials.

As discussed in Mitigation Measure 4.3-1b, the District will be legally required to notify the regulatory agencies of a discovered release. The assigned lead agency would oversee all aspects of the site investigation and remedial action; determine the adequacy of the site investigation and remediation activities at the site and the extent to which they comply with appropriate state and local laws, ordinances, regulations, and standards; and ultimately issue a certificate of completion certifying that applicable remedial action standards and objectives were achieved.

Impact Significance After Mitigation: Less than significant.

Impact 4.3-2: Hazardous building materials may be present in buildings and utilities that are planned for renovation or demolition under the proposed Master Plan. (Potentially Significant)

Potential Hazardous Building Materials at Mission College. Hazardous building materials including asbestos-containing materials, lead-based paint, fluorescent light tubes, and PCB containing electrical equipment may be present in the buildings that are planned to be demolished, remodeled, renovated/ expanded and could be encountered during maintenance of the building interiors and exteriors as well as maintenance of the utility system. If friable or non-friable asbestos is present, there is a potential for release of airborne asbestos fibers when the asbestos-containing materials are disturbed, unless proper asbestos abatement precautions are taken. Such a release could expose the construction workers, campus staff and students, and surrounding populations to airborne asbestos fibers. Similarly, if lead-based paint is present and has delaminated or chipped from the surfaces of the building materials, there is a potential for the release of airborne lead particles, unless proper lead abatement procedures are followed. If PCBs are present in the building to be demolished, leakage could expose workers to unacceptable levels of PCBs (greater than 5 parts per million, based on Title 22, *California Code of Regulations*). Removal of fluorescent light tubes and fixtures could result in exposure to mercury vapors if the lights are broken or exposure to DEHP if present in the light ballasts.

Facilities that would be demolished include the Main Building and Central Plant, constructed in 1978, and Mission Transportables MT2 through MT24, all of which were constructed in 1964 and placed into service in 1978. Because construction of these buildings occurred before or close to the time that the use of asbestos-containing materials, PCB containing equipment, and lead-based paint were banned, there is

the potential for these hazardous building materials to be present in the structures. All fluorescent lights would contain mercury, and some fluorescent light ballasts could also contain DEHP.

Facilities that would be renovated under the proposed Master Plan improvements include the Hospitality Management, Child Development Center, Gymnasium buildings, constructed between 1983 and 2002. These buildings would not likely include hazardous building materials other than fluorescent light tubes containing mercury, and fluorescent light ballasts potentially containing DEHP.

Transite pipe, present in the site utilities, would also be disturbed during modifications to the existing storm drain and sanitary sewer lines.

Potential exposure to hazardous building materials during building demolition and renovation would be *potentially significant,* but mitigated to a less-than-significant level with implementation of Mitigation Measure 4.3-2a, which requires the District to conduct surveys for hazardous building materials prior to any renovation activities, and if warranted, to implement appropriate abatement and disposal procedures in compliance with applicable regulations. Potential exposure to asbestos during construction activities disturbing transite pipe would also be *potentially significant,* but reduced to less than significant with implementation of Mitigation Measure 4.3-2b, which requires the contractor to implement specific work practices to control the release of asbestos.

> **Mitigation Measure 4.3-2:** The following measures shall be required for construction projects at Mission College that could encounter hazardous building materials:
>
> a. For every proposed project involving demolition, remodeling, or renovation of existing structures constructed prior to 1980, the District shall incorporate into contract specifications the requirement that the contractor(s) have a hazardous building materials survey completed by a Registered Environmental Assessor or a registered engineer. This survey shall be completed prior to any construction or demolition activities associated with each project. If any friable asbestos-containing materials or lead-containing materials are identified, adequate abatement practices, such as containment and/or removal, shall be implemented in accordance with applicable laws, described in Appendix D, prior to demolition or renovation. Any PCB-containing equipment, fluorescent light tubes containing mercury vapors, and fluorescent light ballasts containing DEHP shall also be removed and legally disposed of in accordance with the disposal framework described in Appendix D.
>
> b. The District shall require that only appropriately trained workers handle transite pipe and shall oversee utilities work that disturbs transite pipe. The contractor shall ensure that transite pipe is not damaged prior to removal, including excavating by hand beneath the pipe once it is exposed. When handling the pipe, workers shall wear gloves, use only manual tools to cut the pipe, keep all cutting surfaces wet during work. To the extent feasible, transite pipe sections shall be kept intact. The contractor shall ensure that transite pipe is appropriately contained and disposed of in accordance with applicable laws.

Impact Significance After Mitigation: Less than significant.

Impact 4.3-3: Remodeling, renovation, or demolition of existing facilities that are used for hazardous materials storage could expose construction workers, campus staff and students, or the public to hazardous materials, which could cause human health or environmental effects without proper precautions. (Less than Significant)

In the absence of proper precautions, proposed demolition of the Central Plant, Main Building, and sheds behind the power plant could disturb hazardous materials which could expose workers, students, or the public to hazardous materials or result in an accidental release to the environment. However, prior to demolition, hazardous materials stored at these locations would be removed and hazardous materials facilities in these building would be legally closed in accordance with a closure permit from the Santa Clara Fire Department as discussed below, and demolition of these buildings would not result in a release of hazardous materials that would pose a threat to human health or the environment.

The District would prepare a closure plan describing activities that would be conducted to demonstrate that hazardous materials that were stored, dispensed, handled, or used at the facility have been transported, disposed of, or reused in a manner that eliminates the minimizes any threat to public health and safety. The plan would include a description of the size and type of facility to be closed (including a site plan); the chemicals used at the facility; the processes conducted at the facility; equipment, tanks, and other items to be removed; repairs or resurfacing to be conducted; sampling and analysis to be conducted; and planned disposition of hazardous materials and wastes from the facility.

During closure, all tanks, vessels, piping, and other containers would be emptied prior to removal and their contents properly disposed of. Piping would be tested for integrity and surface, soil, or groundwater samples would be analyzed as necessary to demonstrate whether a release of hazardous materials had occurred. If contamination is indicated, the District would submit a remedial action report to the Santa Clara County Health Department, Regional Water Quality Control Board, or Department of Toxic Substances Control with a projected completion date. The Santa Clara Fire Department would not grant final closure for the facility until compliance with all items in the closure plan is confirmed and appropriate documentation is submitted, and demolition would not occur until regulatory closure of the facility is granted.

The District would also require the construction contractor to comply with Santa Clara Fire Department regulations for removal of the UST at the Central Plant. These requirements include obtaining a permit for removal of the UST, notifying the BAAQMD, implementing an approved closure plan, and implementing a health and safety plan. Following removal of the tank, the contractor would be required to obtain soil samples from the tank excavation and groundwater samples would also be required if groundwater is present in the UST excavation. In accordance with regulatory requirements, the District

would require the contractor to store soil removed from the UST excavation on bermed plastic, cover the pile while on-site, and legally disposed of soil removed from the excavation. If indicated by the analytical results, the case could be referred to the local oversight program or the RWQCB for additional investigation and possibly cleanup and the District would implement the regulatory requirements of the lead agency. Compliance with the above regulatory requirements would ensure that impacts related to exposure to hazardous materials during building demolition and renovation would be *less than significant*.

> **Mitigation Measure 4.3-3:** None required beyond compliance with hazardous materials facility and UST closure requirements of the Santa Clara Fire Department.

Impact Significance After Mitigation: Less than significant.

Operational Impacts

Impact 4.3-4: Implementation of the Master Plan projects could result in an increase in the quantities of chemicals stored and used on campus, and could also increase the volume of hazardous wastes produced. (Less than Significant)

Implementation of the proposed Master Plan would result in the net addition of approximately 220,000 square feet of space. Such expansion could increase the use of hazardous materials or generation of hazardous wastes on campus. In addition, the UST at the Central Plant would be replaced at the new CorporationYard/ Facilities Building. If accidentally released during storage or transportation, these materials and wastes could cause human health effects to campus students and staff as well as surrounding populations, including students at the Fairwood Elementary School located approximately one-quarter mile to the northwest of the campus, and could cause adverse environmental effects if released to the environment. However, similar to existing conditions, any new use of hazardous materials or generation of hazardous wastes would be required to comply with the requirements of Santa Clara Fire Department Hazardous Materials Division as the local CUPA Agency. In accordance with these requirements, a facility is required to modify its hazardous materials storage permit and HMBP detailing hazardous material inventories, site layouts, training and monitoring procedures, and emergency response plans when there is a change in the quantities or types of hazardous materials stored.

Transportation of hazardous materials would be subject to the requirements of a well-established regulatory framework. The California Highway Patrol and the California Department of Transportation (Caltrans) are the primary state agencies with responsibility for enforcing federal and state regulations pertaining to transport of hazardous materials within California. The U.S. Department of Transportation regulates the transport of chemicals and hazardous materials by truck between states. These agencies

regulate container types and packaging requirements as well as licensing and training for truck operations, chemical handling and hazardous waste haulers.

Although Fairwood Elementary School is located approximately one-quarter mile of the campus, compliance with the Santa Clara County Department of Environmental Health regulations for hazardous materials storage and hazardous materials transport regulations would reduce the potential for an unacceptable release of hazardous materials within one-quarter mile of a school.

Compliance with the Santa Clara Fire Department Hazardous Materials Division requirements (which incorporate state and federal requirements) and established hazardous materials transport regulations would minimize potential exposure of site personnel and the public (including Fairwood Elementary School) to any accidental releases of hazardous materials or waste during campus operations and would also protect the area from potential environmental contamination. Therefore, with required compliance with these regulations, this potential impact would be *less than significant.*

> **Mitigation Measure 4.3-4:** None required beyond compliance with requirements in state and federal requirements governing the transportation and use of hazardous materials and Santa Clara Fire Department Hazardous Materials Division requirements.

Impact Significance After Mitigation: Less than significant.

REFERENCES – HAZARDS AND HAZARDOUS MATERIALS

Agency for Toxic Substances and Disease Registry. 2007. Asbestos. Available online at <www.atsdr.cdc.gov/asbestos/asbestos/health_effects/>.

California Environmental Protection Agency (CalEPA), 2005. *Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties*. January.

California Integrated Waste Management Board (CIWMB), 2007. *Fluorescent Lamps and Tubes*. Accessed at http://www.ciwmb.ca.gov/WPIE/FluoresLamps/, September 18.

California Regional Water Quality Control Board (RWQCB),_2005. *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater. Interim Final – July 2005*.

Environmental Data Resources (EDR), 2008. *The EDR Radius Map with GeoCheck, West Valley Mission Community College District, 3600 Mission College Blvd., Santa Clara, CA 95054. Inquiry No. 2214957.1s*. May 8.

Green Lights Recycling, Inc. 2007. *Ballasts Facts*. Accessed at <www.greenlightsrecycling.com/ballast%20Facts.htm>. September 19.

Harding Lawson Associates, 1992. To be provided

Mission Community College, 1996. Re: Hazardous Materials Inventory. Updated site maps and inventory listing. November 22.

Orion Environmental Associates, 2008. Review of aerial photographs at Pacific Aerial Surveys, 2100 Broadway, Oakland, CA. July 28, 2008.

Santa Clara Valley Water District, 2000. To be provided

U.S. Environmental Protection Agency (USEPA). 2005. *Polychlorinated Biphenyls (PCBs)*. Accessed at <www.epa.gov/opptintr/pcb>. April 10.