3.11 HAZARDOUS MATERIALS

Introduction

This section describes the environmental setting and effects of the proposed project with regard to hazardous materials. Specifically, this section identifies the existence of hazardous materials within the Santa Clara-Alum Rock Corridor and describes regulations applicable to remediation of soil and groundwater spills and leaks. The assessment of substantial adverse effects and mitigation measures of the proposed project related to hazardous materials are also described. Information in this section is based on the Phase I Initial Site Assessment (ISA) prepared for the Santa Clara-Alum Rock Corridor.[1] The ISA was prepared by assessing the potential for presence of hazardous materials within the project alignment and the information contained therein was obtained through a review of regulatory agency databases and a visual reconnaissance of the Corridor area.

Existing Conditions

The Santa Clara-Alum Rock Corridor generally extends from the San Jose Diridon Station (a multi-modal LRT, commuter rail, and bus station) on the west, through Downtown San Jose along Santa Clara Street and Alum Rock Avenue to Capitol Avenue on the east. The west/east length of the Corridor is approximately 4.3 miles.

Hazardous materials are currently used by numerous businesses at and near the Corridor. In addition, hazardous materials may be present in surface and subsurface soils and groundwater at sites within the Corridor as a result of releases from current or historic land uses. The presence of hazardous materials could potentially expose construction workers or the public to various health risks and may require special soil and/or groundwater management procedures during construction of the proposed project.

In October 2001, a visual site reconnaissance was conducted to identify areas where environmental contamination may exist. Also, an environmental database search of regulatory listed hazardous materials sites contained in local, regional, State, and federal databases was performed for the Corridor and the area within a half-mile radius of the Corridor. Sites are categorized as to whether the site is located either up gradient or adjacent to the Corridor, on which regulatory list it appears, and the level of potential for an environmental condition. Sites are ranked as having low, moderate, or high potential for an environmental condition. Those sites ranked with a low potential are considered as such due to factors including, but not limited to direction of groundwater flow away from the site, on-going remedial action, soil as the only factor affected by an event, and determination by an oversight agency that no further action is necessary. Those sites with a moderate ranking are considered so because the remedial status is unknown; is close proximity to the project site; or groundwater flows towards the site. Sites with a high potential to create an environmental condition are considered as such because an occurrence has been noted on-site or directly

[1] EIP Associates, 2004.

adjacent to project site and the status of remedial action is unknown, and/or, an occurrence is located up gradient from the subject site and has affected groundwater.

The database search conducted to identify sites of environmental concern identified a total of 63 sites in the vicinity of the project site. Three of the 63 sites were identified as having a moderate potential for impact to the Corridor, and one of the 63 sites was identified as having a high potential for impact to the Corridor. These four sites are listed on Table 3.11-1 and depicted in Figure 3.11-1. Details regarding these four sites are provided below. Detailed information on the remaining 59 properties ranked as having a low potential for an environmental condition is included in the ISA, Appendix H of this document.

Table 3.11-1
Moderate to High Potential Sites Located on or Adjacent to the Project Corridor

Location on Figure 3.11-1	Site Address	Regulatory List	Hazard Description	Affected Media	Site Status	Potential for an Environmental Condition
Site 1	Vance Hopkins 2510 Alum Rock Ave.	HIST UST[a]	Historic records of USTs	n/a	n/a	Moderate—Former USTs at site; no record of releases or remediation
Site 2	EZ-Fill 2149 Alum Rock Ave.	LUST[b] Cortese[c] Haznet[d]	Leaking Underground Storage Tank	soil ground-water	open	High—Preliminary site assessment workplan submitted
Site 3	Jet Gas 1598 Alum Rock Ave.	LUST Cortese HIST UST	Leaking Underground Storage Tank	soil ground-water	open	Moderate—Remediation action in progress.
Site 4	7-Eleven 452 E. Santa Clara St.	LUST Cortese	Leaking Underground Storage Tank	soil ground-water	open	Moderate—Remediation plan developed.

Source: Environmental Data Resources, Inc. (EDR), 2004

Notes:

a. HIST UST – Hazardous Substance Storage Container Database: 0.25 miles.

b. LUST – Leaking Underground Storage Tank Information System: 0.5 miles.

c. Cortese – "Cortese" Hazardous Waste and Substances Sites List: 1 mile.

d. Haznet – Hazardous Waste Information System: 0.25 miles.

FIGURE 3.11-1: SITES WITH MODERATE TO HIGH POTENTIAL FOR ENVIRONMENTAL CONTAMINATION

Source: Korve Engineering, 2004; EIP Associates, 2004.

Site 1—Vance Hopkins (for Equilon Enterprises LLC dba Shell Oil Products (Shell))—2510 Alum Rock Avenue—Moderate Potential.

The Vance Hopkins facility is an active gasoline station located southeast of the corner of Alum Rock Avenue and the northbound I-680 off-ramp. This site is listed on the Historical Underground Storage Tank (HIST UST) database. Three USTs and the associated service islands were replaced in 1987 following the discovery of a release of petroleum hydrocarbons to the subsurface. Several monitoring wells have been installed to characterize hydrocarbon distribution in soil and groundwater and extensive soil sampling has been done leading to the excavation and off-site disposal of approximately 150 cubic yards of hydrocarbon-impacted soil. Methyl tertiary-butyl ether (MTBE) was also detected in one soil sample and several groundwater samples; however, total petroleum hydrocarbons as gasoline (TPH-g) and benzene, toluene, ethyl benzene, and total xylenes (BTEX) were not detected in soil. A groundwater extraction system was recently completed in response to the suggestion that hydraulic control of the MTBE plume can be achieved through groundwater extraction at this facility.

Based upon the available data, the soil and groundwater impacts resulting from releases at 2510 Alum Rock Avenue are considered a concern to the Corridor.

Site 2—EZ-Fill—2149 Alum Rock Avenue—High Potential.

This facility is an inactive service station located at the northwest corner of Jose Figueres Avenue and Alum Rock Avenue. Three gasoline USTs and one waste oil UST were removed from this facility in June 1990. Following this action, this facility has gone through several investigations, bioremediations, and monitoring programs between 1990 and 2003. Results from groundwater monitoring wells indicated that the lateral extent of the groundwater plume had not been adequately defined and a monitoring report dated January 2004 indicated that groundwater concentrations of petroleum hydrocarbons are decreasing. A work plan for the off-site delineation of the hydrocarbon plume is currently being implemented, but the soil and groundwater impacts resulting from releases at this property are still considered a concern to the Corridor.

Site 3—Jet Gas—1598 Alum Rock Avenue—Moderate Potential.

The Jet Gas facility, located at the southwest corner of 33rd Street and Alum Rock Avenue, is currently operating as a Tesoro gasoline station. Jet Gas is listed on the LUST, Cortese, and HIST UST databases. Three gasoline USTs and one waste oil UST were removed from this facility in 1986. When the station was purchased in 1990, nine groundwater-monitoring wells were installed to investigate petroleum hydrocarbon release. In 1993, as a result of this investigation, a groundwater remediation system was installed at the site, which ceased operation in 1997 when the treated effluent from the system failed fish bioassay analyses. In 1996, three existing underground fuel tanks were upgraded with spill containment equipment and the product lines were reinstalled with containment structures. At the time of the system upgrade, detectable concentrations of petroleum hydrocarbons were found in the soil beneath the product lines. In January 1998, an oxygen-releasing compound was injected into the soil and groundwater at the site and for a period of eight months there was no measurable biodegradation, reduction of petroleum hydrocarbons, or increase in dissolved oxygen in the groundwater. Between 1998 and 2000, the soil and groundwater

continued to be tested for MTBE in soil and groundwater, and eventually a deeper monitoring well was installed at this facility.

As of 2003, the lateral extent of the plume had not yet been fully characterized due to access issues with some of the adjacent properties. Based upon the available data, the soil and groundwater impacts resulting from releases from 1598 Alum Rock Avenue are considered a concern to the Corridor.

Site 4—7-Eleven—452 East Santa Clara Street—Moderate Potential.

This facility, located at the southeast corner of East Santa Clara Street and 10th Street, is an active 7-Eleven convenience store and gasoline station. The 7-Eleven facility is listed on the LUST database. Three gasoline USTs and one waste oil UST were removed from this facility in 1990. A well to provide leak detection was installed in 1985 as part of UST compliance requirements. Two additional monitoring wells were installed in 1989 in response to an unauthorized release report filed in 1988. This report was based on two things: 1) a 15-gallon release of fuel due to line damage that took place during an upgrade of the underground fueling system, and 2) detection of liquid phase hydrocarbons in an on-site well. Various types of wells continued to be installed between 1991 and 1993. An assessment on surrounding properties and injection of microbial/nutrient and oxygen-releasing compound slurry at the facility were conducted in 1999. Although the MTBE concentrations did not comply with regulations, the levels of dissolved MTBE showed evidence of decline in response to these treatment measures. In 2001, more monitoring wells were installed to monitor the vertical plume distribution. Periodic oxygen injection at this facility continued in 2002 and 2003 and by mid-2003, soil samples collected did not contain TPH-g, BTEX, or MTBE at levels above laboratory reporting limits, but still not at a level of compliance. Because of this, the soil and groundwater impacts resulting from releases at 452 East Santa Clara Street are considered a concern to the Corridor.

Regulatory Setting

The use, storage, and disposal of hazardous materials, including management of contaminated soils and groundwater, are regulated by federal, State, and local laws and regulations. The U.S. Environmental Protection Agency (U.S. EPA) is the federal-administering agency for hazardous waste regulations. State agencies include the California Environmental Protection Agency (Cal EPA) and the Department of Toxic Substances Control (DTSC). Local regulatory agencies include the City of San Jose Fire Department (SJFD), Santa Clara Valley Water District (SCVWD), and Santa Clara County Department of Environmental Health, Hazardous Materials Compliance Division (SCCDEH).

Worker health and safety is protected by federal and State regulations. The Occupational Safety and Health Administration (OSHA) is the federal-administering agency for worker health and safety regulations. The California Department of Industrial Relations, Division of Occupational Health (DOSH) has jurisdiction over State regulations.

A description of agency jurisdiction is summarized below:

Environmental Protection Agency (EPA)

EPA is responsible for enforcement and implementation of federal laws and regulations pertaining to hazardous materials. These federal regulations are published in Title 40 of the *Federal Code of Regulations* (40 CFR). The legislation is outlined in the *Resource Conservation and Recovery Act* of 1976 (RCRA), the *Comprehensive Environmental Response, Compensation, and Liability Act* of 1980 (CERCLA), and the *Superfund Amendments and Reauthorization Act* of 1986 (SARA). The *Federal Hazardous Materials Transportation Law* of 1994 regulates the transportation of hazardous materials. These laws and associated regulations include specific requirements for facilities that generate, use, store, treat, and/or dispose of hazardous materials. EPA provides oversight and supervision for federal Superfund investigation/remediation projects, evaluates remediation technologies, and develops hazardous materials disposal restrictions and treatment standards.

California Environmental Protection Agency (Cal EPA)

Cal EPA is the State regulatory agency that is comprised of regional boards, departments, and offices to implement State laws and regulations pertaining to hazardous materials. Cal EPA is comprised of the California Air Resources Board (CARB), the Department of Pesticide Regulation (DPR), DTSC, the Integrated Waste Management Board (IWMB), the Office of Environmental Health Hazard Assessment (OEHHA), and the State Water Resources Control Board (SWRCB).

Department of Toxic Substances Control (DTSC)

In California, DTSC is authorized by EPA to carry out the RCRA program in California. Permitting, inspection, compliance, and corrective action programs ensure that people who manage hazardous waste follow State and federal requirements. Most State hazardous materials regulations are contained in Title 22 of the California Code of Regulations (CCR). DTSC provides cleanup and action levels for subsurface contamination these levels are equal to or more restrictive than federal standards. DTSC has also developed land disposal restrictions and treatment standards for hazardous waste disposal in California.

San Jose Fire Department (SJFD)

SJFD is responsible for administration of the City's Hazardous Materials Program and is the local implementing agency for hazardous material regulations for sites within the City of San Jose. The SJFD Hazardous Materials Division issues permits for the operation and removal of underground and aboveground storage tanks (USTs and ASTs), and conducts annual inspections to ensure compliance with hazardous materials management and UST operation regulations within the City of San Jose.

Santa Clara Valley Water District (SCVWD)

SCVWD manages groundwater throughout Santa Clara Valley and works in conjunction with RWQCB to oversee and provide guidelines for investigating and remediating sites affected by the release of petroleum hydrocarbon fuels from USTs.

Santa Clara County Department of Environmental Health (SCCDEH)

SCCDEH enforces State and local regulations pertaining to hazardous waste generators and risk management prevention programs. In addition, SCCDEH is responsible for enforcing programs managed by the SJFD for federal, State, and county properties and facilities within the City of San Jose.

Occupational Safety and Health Administration (OSHA)

OSHA is responsible for enforcement and implementation of federal laws and regulations pertaining to worker health and safety. Under its jurisdiction, the *Hazardous Waster Operations and Emergency Response* (HAZWOPER) *regulations*, in 29 CFR 1210.120, require training and medical monitoring for workers at hazardous waste sites. Additional regulations have been developed for construction workers regarding exposure to lead (29 CFR 1926.62) and asbestos (29 CFR 1926.1101) during construction activities.

Division of Occupational Health (DOSH)

At the State level, DOSH is charged with enforcement of State regulations and supervision of workplaces in California that are not under direct federal jurisdiction. State worker health and safety regulations applicable to construction workers include training requirements for hazardous waste operations and emergency response (8 CCR 5192) and lead (8 CCR 1532.1) and asbestos (8 CCR 1529) regulations, which equal or exceed the federal standards.

Impact Assessment and Mitigation Measures

Approach and Methodology

The assessment of adverse effects related to hazardous materials was based on the findings of the hazardous materials report prepared by PBS&J. The assessment evaluates the potential for construction and operational activities under the proposed project to significantly impact the environmental conditions within the Santa Clara-Alum Rock Corridor with respect to hazardous materials. Where applicable, mitigation measures are provided to minimize anticipated significant impacts.

Standards of Significance

Based on significance criteria used by VTA, the proposed project may result in a significant impact related to hazardous materials if they would:

- 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 a quarter-mile of an existing or proposed school;
- be located on a site that is included on a list of hazardous materials sites and, as a result, create a significant hazard to the public or the environment;
- create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- 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 hazards 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; or
- expose people or structures to a significant risk of loss, injury or death involving wildland fires.

Environmental Analysis

In order to determine hazardous materials impacts due to construction and operation of the proposed project, a level of significance is determined and reported. Conclusions of significance are defined as follows: significant (S), potentially significant (PS), less than significant (LTS), no impact (NI), and beneficial (B). If the mitigation measures would not diminish potentially significant or significant impacts to a less-than-significant level, the impacts are classified as "significant and unavoidable (SU)." For this section, HAZ refers to Hazardous Materials.

For the purposes of this analysis, the proposed project includes the implementation of BRT and Single Car LRT in the Santa Clara-Alum Rock Corridor in two phases. Phase 1 includes the implementation of BRT service and Phase 2 includes the implementation of Single Car LRT service. Potential hazardous materials impacts associated with Phase 1 and Phase 2 of the proposed project, including project options, would be largely similar. Therefore, the analyses for the two project phases are discussed together. Areas in which the effects of the two phases differ are detailed within the discussion of each significance threshold.

Potential impacts associated with the extension of transit services in the Capitol Expressway Corridor were analyzed in the Capitol Expressway Light Rail Final Supplemental Environmental Impact Report (FSEIR) dated January 2007, which is incorporated herein by reference. Potential impacts of the proposed project not analyzed in the Capitol Expressway Light Rail FSEIR are described below, as necessary.

HAZ-1. Implementation of the proposed project may result in a hazard to the public or environment through reasonable foreseeable upset and accident conditions caused by the release of hazardous materials, and result in a potentially significant impact. (PS)

As stated above, there are four facilities ranked as having a moderate to high potential for an environmental condition located adjacent to the Santa Clara-Alum Rock Corridor. Construction activities in the vicinity of any of these four sites could result in construction workers and/or the public to come into contact with contaminated soil or groundwater. This would be considered a potentially significant impact.

MITIGATION MEASURES. Implementation of the following two mitigation measures would ensure that the hazard to the public or environment through a reasonable foreseeable upset or accident conditions caused by the release of hazardous materials is reduced to a less-than-significant impact. (LTS)

HAZ-1.1 Following confirmation sampling of potentially impacted soils, VTA and its contractors shall comply with the Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities regulatory requirements for hazardous materials/waste health and safety plans. The Health and Safety Plan shall establish policies and procedures to protect workers and the public from potential hazards posed by residual contamination issues at the site. The Plan shall include items applicable to site conditions, such as identification of contaminants, potential hazards, material handling procedures, dust suppression measures, personal protection clothing and devices, controlled access to the site, health and safety training requirements, monitoring equipment used during construction to verify health and safety of workers and the public, measures to protect public health and safety, and emergency response procedures. If petroleum hydrocarbons were present in the soil proposed for the use of backfill or disposal, the handling and disposal of the contaminated soil would be governed by the applicable local and federal hazardous materials regulations. If contaminated groundwater were also encountered during construction activities, the handling and disposal of the contaminated groundwater would be governed by the applicable local and federal hazardous materials regulations.

HAZ-1.2 If it is later discovered that monitoring and/or remediation wells are located within the area to be developed with the proposed Santa Clara-Alum Rock Corridor, the wells may need to be abandoned according to applicable State and federal guidelines. Additionally, the abandoned monitoring wells may need to be replaced to accommodate the existing monitoring and/or remediation activities at these facilities, in accordance with applicable State and federal regulations.

HAZ-2. Implementation of the proposed project may result in hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school. This would be considered a potentially significant impact. (PS)

There are five schools and one university located within 0.25 miles of the Santa Clara-Alum Rock Corridor. As described above, there are four facilities ranked as having a moderate to high potential for an environmental condition located adjacent to the Santa Clara-Alum Rock Corridor.

Implementation of Mitigation Measures HAZ-1.1 and HAZ-1.2, described above, would reduce any adverse effect to schools in the Corridor to a less-than-significant impact. (LTS)

MITIGATION MEASURES. Refer above to Mitigation Measures HAZ-1.1 and HAZ-1.2.

HAZ-3. Implementation of the proposed project would not result in a hazard to the public or environment from a federally or State-listed hazardous materials site. (LTS)

As described previously, there are several federally and/or State-listed hazardous materials sites located within the Santa Clara-Alum Rock Corridor. Under implementation of the proposed project, these sites would continue to undergo remediation or monitoring called for in existing plans. Thus, if continued implementation of remediation and monitoring occurs, the proposed project would not have any effect on these remediation efforts. Therefore, impacts associated with hazards to the public or the environment from one of the listed hazardous materials sites would be less than significant.

HAZ-4. Implementation of the proposed project would not result in a hazard to the public or environment through the routine transport, use, or disposal of hazardous materials. (NI)

Implementation of the proposed project would result in the construction of transit facilities for the sole purpose of moving people. The transport, use, or disposal of hazardous materials would not occur under the proposed project. Therefore, no impact would occur.

HAZ-5. Implementation of the proposed project would not 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, resulting in a safety hazard for people residing or working in the project area. (LTS)

A portion of the Corridor is located approximately 1.75 miles from San Jose International Airport, a general aviation airport located in the City of San Jose. As stated in the Federal Aviation Regulations (FAR) Part 77, any construction or alteration must maintain a 100-to-1 foot slope outward up to 20,000 feet from the runway. As related to the proposed project, abidance with this regulation would allow a maximum building height of approximately 90 feet. The building height requirement would not be of concern due to the absence of facilities or structures within the proposed project. Therefore, implementation of the proposed project would not conflict with any existing or proposed land uses such that a potential health or safety risk for people residing or working in the project area, and a less-than-significant impact would occur.

HAZ-6. Implementation of the proposed project would not be located within the vicinity of a private airstrip, resulting in a safety hazard for people residing or working in the project area. (NI)

The proposed project would not be within the vicinity of a private airstrip. Therefore, no impact would occur.

HAZ-7. Implementation of the proposed project would not physically interfere with an adopted emergency response plan or emergency evacuation plan. (LTS)

As discussed in Section 3.5, Community Services, existing and planned service levels for police, fire and other emergency services are expected to be adequate with implementation of the proposed project. Construction-related impacts are discussed in Section 3.18, Construction Impacts. Accordingly, impacts related to emergency response in the project vicinity would be less than significant.

HAZ-8. Implementation of the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. (NI)

The project area is in an urbanized setting, remote from wildlands. Therefore, safety hazards from wildland fires would have no impact on the proposed project.