2.11 HAZARDOUS WASTE/MATERIALS

This section addresses hazardous materials issues as they relate to NEPA. The information below is summarized from the Phase 1 Environmental Site Assessment/Initial Site Assessment (Phase 1/ISA) prepared by BASELINE Environmental Consulting in January 2004. The Phase 1/ISA is available for public available for public review at Caltrans District 4, 111 Grand Avenue, Oakland, CA 94610, and the Solano Transportation Authority, One Harbor Center, Suite 130, Suisun City, CA 94585 during normal business hours.

The following tasks were performed for this assessment:

- a review of historical land use information;
- interviews;
- a visual site reconnaissance;
- a review of regulatory lists and databases; and
- the development of recommendations for further actions to evaluate whether current or historical releases of hazardous materials may have the potential to affect the proposed project.

Regulatory Setting

Hazardous materials and hazardous wastes are regulated by many state and federal laws. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health and land use.

The primary federal laws regulating hazardous wastes/materials are the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). The purpose of CERCLA, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. RCRA provides for “cradle to grave” regulation of hazardous wastes. Other federal laws include:

- Community Environmental Response Facilitation Act (CERFA) of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety & Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In addition to the acts listed above, Executive Order 12088, Federal Compliance with Pollution Control, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

In California, the U.S. EPA has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (Cal EPA). In turn, a local agency, the Hazardous Materials Section of the Solano County Resource Management

Department, has been granted responsibility for implementation and enforcement of many hazardous materials regulations in Solano County under the Certified Unified Program Agency (CUPA) Program (California Health and Safety Code Chapter 6.11).

In California, regional agencies are responsible for programs regulating emissions to the air, and discharge of waste and wastewater to land, surface waters, and groundwater. At the project site, the Bay Area Air Quality Management District (BAAQMD) has oversight over air emissions, and the San Francisco Regional Water Quality Control Board (RWQCB) regulates discharges and releases to land, surface waters, and groundwater. The RWQCB provides regulatory oversight for leaking underground storage tank (UST) release sites and other sites with contaminated groundwater. At the project site, the agency for oversight of leaking UST cases is the Solano County Environmental Health Department, Hazardous Materials Program.

Affected Environment

The project area and vicinity was primarily used for agriculture until the 1920s, when U.S. Highway 40, (US 40, now designated I-80) was constructed. Since that time, commercial, residential, and light industrial land uses have been introduced. As a result, there may be the potential for agricultural chemical residues to be present in shallow soils within the project area. Other historical land uses that could potentially have involved hazardous materials use include railroad tracks near the West End of the project, a truck stop complex and truck scales in the Central Section, and light industrial land uses near Russell Road at the East End.

No bare spots or stunted vegetation that might be indicative of a hazardous material release were identified within the project area during the reconnaissance. No staining, odors, or other evidence of hazardous materials releases were noted.

Historic and Current Land Uses

The West End
In 1902 Jameson Canyon Road (now designated SR12) and Southern Pacific Railroad (now Union Pacific) tracks were located near their current position. Approximately eight small rural residences were located in this portion of the project area.

By 1937, the date of the first available aerial photograph, US 40 had been constructed along the current SR12/I-80 alignment. A quarry operation consisting of unimproved roads, a pond, and small structures was present north of SR12. Properties north and south of the project area were used for agriculture, with crop patterns suggesting pastures and/or field crops in this area. Small buildings in the project vicinity appear to have been rural residences, barns, and agricultural outbuildings. No significant land use changes were noted in resources from 1947 to 1957.

Between 1957 and 1965, US 40 was redesignated I-80 and widened. The quarry operations north of the SR12/Red Top Road interchange appeared to have expanded and the pond had increased in area. The 1980 topographic map shows a water pipeline and pump station north of SR12 near the project area.

Current land uses potentially associated with hazardous materials in the West End of the project area include a dairy, farm, railroad tracks, and a pump station. Of these land uses, only the railroad tracks, which are located near the Red Top Road/SR12 interchange, were adjacent to proposed project improvements.

The Central Section
In 1902, the alignment for Jameson Canyon Road (now designated SR12) was located approximately 0.75 mile south of the present SR12/I-80 alignment. Green Valley, Suisun, and Ledgewood (now Dan Wilson) Creeks were present near their current positions. Land uses were agricultural, with the exception of a quarry and railroad spur located near Jameson Canyon Road, approximately 1 mile south of the project area. By 1918, the quarry operation south of the project area had intensified, and a small town (Thomasson) was marked on the topographic map.

By 1937, the date of the first available aerial photograph, US 40 had been constructed along the current SR12/I-80 alignment. Land uses immediately north and south of the alignment were primarily agricultural, with some residential and commercial buildings located near US 40 at the Green Valley Road and Suisun Valley Road interchanges. A mixture of crop patterns were visible in this portion of the project area, with some fields appearing to be used for orchards or row crops and other fields appearing to be used for field crops or pasture.

By 1947, Green Valley Road had been extended south of the project area. Green Valley School was shown south of the project area, near Green Valley Road. By 1957, additional commercial buildings had been constructed near Green Valley Road and Suisun Valley Road, and weigh station buildings were apparent on each side of US 40. Between 1957 and 1965, additional commercial development was apparent in the project area, including construction of a truck stop complex near Suisun Valley Road.

Between 1970 and 1980, buildings associated with Solano Community College were constructed north of the project area. Additional commercial development was apparent near Green Valley Road. No changes were noted in the aerial photograph from 1984. Between 1984 and 1994, Business Center Drive was constructed, and several commercial buildings along this new roadway had been constructed or were under construction in 1994.

In the Central Section of the project area, the former truck stop complex was the only adjoining land use associated with significant hazardous material use. Although no construction activities are proposed at the truck stop complex, there may be a potential for releases of hazardous materials in this area to migrate and affect portions of the project area.

The East End
In 1902, the alignment for Jameson Canyon Road (now SR12) was located approximately 0.75 mile south of the present SR12/I-80 alignment. No paved roads were marked in this portion of the project area. Approximately eight small rural residences were present in this portion of the project site.

By 1937, the date of the first available aerial photograph, US 40 had been constructed along the current SR12/I-80 alignment. Russell Road was present in its current location but did not

appear to be paved. Parcels north and south of the project area were under agricultural cultivation with row crops and orchards. Buildings in this area appeared to be farmhouses, barns, and agricultural outbuildings. These outbuildings may potentially be associated with hazardous material use. Agricultural chemicals may have been stored and/or mixed, equipment repair may have been conducted, and/or aboveground or underground storage tanks could potentially have been used. In addition, a concrete pipe distributor, tractor company, and vineyard are located in this portion of the project area.

By 1947, the topographic map showed that the town of Russell was present near the intersection of US 40 and Russell Road, and approximately 12 small buildings were located in the town. By 1957, light industrial buildings, including the buildings currently used by a tractor company and a cement pipe distributor, had been constructed in this area.

South of the project site, a large industrial building (Fairfield STP facility) was constructed approximately 0.25 mile south of the project area, near Busch Drive, between 1970 and 1980.

The new roadway constructed in the East End of the project area would be constructed on agricultural and commercial properties north of I-80. West of the truck scales were several farmhouses and outbuildings. Agricultural fields and scattered trees were present in this area. Near the eastern terminus of the project area at the intersection of Russell Road/Abernathy Road, several commercial buildings were present in the project area.

Hazardous Materials Sites

Fifty-four sites associated with hazardous materials were identified within a 1-mile radius of the project area and are indicated on Figures 2.11-1a and 2.11-1b and contained in Appendix G of this report. According to the Phase 1/ISA, none of Federal or State listed hazardous waste sites would be likely to affect the project area.

Federal Hazardous Waste Sites
Two sites within 1 mile of the project area are listed on the EPA's CERCLIS database of known or suspected hazardous waste sites. They are as follows:

The Southern Pacific Suisun Site
The Southern Pacific Suisun site is located within Suisun Marsh, north of Suisun Bay. In March 1969, a Southern Pacific train derailed at this location and two tanker cars containing white phosphorus ruptured, ignited, and burned for four hours. Subsequently, the tank cars and a third box car containing corn were buried at the site, capped with concrete, and surrounded by a chain-linked fence. The Solano County District Attorney's Office filed an enforcement action in 1988 and until 1993 provided oversight of the investigation and monitoring of the groundwater at this site. In April 1997, a workplan was approved that replaced the concrete cap with a multilayer cap, which better blended with its surroundings. This remedial action was completed in September 1997. A deed restriction was recorded prohibiting any alteration to the cap and disallowing residential use of the site. This site is also listed on the California Department of Toxic Substances Control (DTSC) Cal-Sites hazardous material site database and the State Deed Restriction database.

The Fairfield STP Site
The Fairfield STP site is located South of I-80 and Busch Road. It was investigated under the CERCLIS program in 1980; no record of hazardous material releases or remedial activities was noted in the database record. Information regarding this site was archived by the EPA in 1989.

State Hazardous Waste Sites
Two sites in the project vicinity were listed on State hazardous material site databases: the Southern Pacific Suisun site which is described above, and the Mangels Ranch site at 287 Suisun Valley Road.

The Mangels Ranch Site
The Mangels Ranch site is located north of I-80 and south of Rockville Hills Community Park. Mangels Ranch is a vacant ranch formerly occupied by a homestead where both vineyard and orchard crops were historically cultivated. Three underground storage tanks were removed from the site in March 1987 under Solano County oversight; no releases from the tanks were identified during removal activities. In June 1998, additional soil samples were collected at the site. Based on analytical results, significant concentrations of toxaphene were reported in the former cattle handling area located near the center of the property. The property owner entered into a Voluntary Cleanup Agreement (VCA) with the DTSC in September 1998, but was determined to be non-compliant with that order in March 2002. The DTSC took over cleanup of the site and approved the Final Removal Action Workplan (RAW) in June 2002. The RAW proposes that approximately 1,800 cubic yards of soil contaminated with toxaphene above the residential cleanup level of 360 micrograms per kilogram (mg/kg) be excavated and disposed of off site. Removal work was expected to be completed prior to the 2003 wet winter weather season, but no information regarding the completion of the removal action was available in DTSC databases.

There are 51 additional sites where a release of hazardous materials was reported, where underground storage tanks, leaking or otherwise, are present: and generators of hazardous materials, such as PCBs and solvents. Of the 51 sites, there are 29 sites where hazardous materials were released into the environment, one of which also contained an underground storage tank; eight sites that contain underground storage tanks, three of which are leaking; and eight sites that are generators of hazardous materials. Six sites were on the regulatory list although no hazardous waste violations were reported.

Lead and Asbestos

Lead-Based Paint and Asbestos-Containing Materials
Lead oxide and lead chromate were commonly used in paints until 1978, when regulations limited the allowable lead content in paint. Therefore, interior and/or exterior painted surfaces at buildings constructed prior to 1978 have the potential to contain lead-based paint. Yellow thermoplastic and yellow paint, used for traffic striping and pavement marking throughout the project area, may also contain elevated concentrations of lead, regardless of manufacture date. Therefore, pavement markings and interior and/or exterior painted surfaces at buildings constructed prior to 1978 likely contain lead-based paint.

Asbestos was commonly used in construction materials until the 1980s, when its use was phased out. Therefore, building materials manufactured prior to the 1980s have the potential to contain asbestos fibers, which could be released during demolition activities. Airborne asbestos is a known human carcinogen.

California Department of Mines and Geology mapping does not show any naturally-occurring asbestos hazards within the vicinity of the project area.

Development of the project could potentially require the demolition of several structures located at and near the project that were constructed prior to 1980. These buildings include a pump house on SR12 in the West End of the project, farmhouses and outbuildings, and a concrete pipe distributor, tractor company, and winery in the East End of the project. Demolition or renovation of structures constructed prior to 1980 may have the potential to expose construction workers and the public to lead and/or asbestos hazards.

Aerially Deposited Lead

Aerially deposited lead occurs in roadside soils and is the result of lead deposition from vehicle exhaust during the era of lead additives in fuel. This lead is attributed to the use of lead in gasoline, which was phased out beginning in the mid-1970s.

Historical maps and aerial photographs (discussed under Historical Land Uses, above) show that I-80 (then designated Highway 40) and other roadways in the project area were constructed in the 1940s and 1950s, prior to the phase-out of lead in gasoline. As a result, it is likely that soils near or at the project area may contain total lead above the Total Threshold Limit Concentration, which is 1,000 mg/kg. Soils which exceed the TTLC would be classified as a hazardous waste, once excavated, and would require special handling and disposal procedures. Caltrans' experience is that soils within 30 feet of a roadway may potentially be affected by aerially-deposited lead. All lead-affected soils with a pH less than 5.0 must be covered with pavement or similar impervious surface.

Therefore, it is Caltrans policy that all shallow soils near highways may potentially contain elevated concentrations of aerially-deposited lead, and soils within Caltrans rights-of-way that will be disturbed during construction are routinely tested for total and/or soluble lead to properly classify the soils and ensure that all necessary soil management and disposal procedures are followed.

Existing Conditions

A Hazardous Materials Technical Report and Phase 1/Initial Site Assessment (Phase 1/ISA) was completed for the project by Baseline Environmental Consulting in February 2003.

The document was completed in accordance with the Caltrans' Initial Site Assessment Checklist. The scope of work included a review of historical land use information, interviews, a visual site reconnaissance, a review of regulatory lists and databases, and the development of recommendations for further actions to determine whether current or historical releases of hazardous materials may have the potential to affect the project.

Federal, State, and local regulatory agency databases were searched in 2002 by Environmental Data Resources (EDR), Inc. to identify any hazardous material use or releases on properties within a one-mile radius of the project site. However, because the project would not involve extensive demolition or excavation, only those sites within one-half mile of the study area or within the study area are considered potentially relevant.

Listed Sites of Potential Concern within the Study Area

Seven sites of potential concern are located within the study area (Sites 26, 27, 30, 44, 50, 55, and 57). These sites are discussed in Table 2.11-1 and shown in Figures 2.11-1a and 2.11-1b. Sites 26 and 27 are no longer a source of potential concern because the businesses at these locations have been removed and replaced by a public storage facility (Rent-A-Space). Sites 30 and 57 represent a minor commercial spill that was cleaned up within 24 hours. No detailed information is available regarding Site 44, but it is assumed to be a roadway spill that has been cleaned up.

Site 50, the PG&E electrical substation, contains transformers that may have at one time contained polychlorinated biphenyls (PCBs). The available database information indicates there has not been a release at this site and a file check in November 2002 with the Alameda County Environmental Health Department (ACEHD) found no record of a release. Because the project does not involve construction, demolition, or excavation activity on the PG&E property and, since there is no evidence of off-site migration of hazardous materials, this site is unlikely to affect the proposed project.

Site 55 is an operational Unocal service station containing active USTs. This business generates waste oil and other liquid wastes, which are recycled. Records indicate that a release of gasoline was detected in 1992, but it was determined that only soil was impacted and this case was closed by the lead regulatory agency in 1995. A visual inspection during the site reconnaissance did not reveal the presence of groundwater monitoring wells at the site. The ACEHD confirmed that the file for this site is closed. None of the alternative alignments proposed for the I-580 project involves construction, demolition, or excavation activity on the Unocal property so it is unlikely this site would affect project development.

Table 2.11-1: Listed Sites of Potential Concern within the Study Area

ID	Site Name & Address	Database Listing	Site Description
26	Diablo Builders 3937 Castro Valley Blvd Castro Valley, CA 94546	HAZNET	Business generated 23.6 tons of asbestos-containing waste. The waste was disposed of at a landfill. Business is no longer located at this location.
27	Fotomat Corp 3949 Castro Valley Blvd Castro Valley, CA 94546	RCRIS-SQG, FINDS	Business is listed as a small quantity generator. No violations have been reported. Business is no longer at this location.
30	(Owner/operator not identified) 4105 Castro Valley Blvd. Castro Valley, CA 94546	CHMIRS	A spill involving 0.25 gallon of hydrochloric acid occurred on 11/23/91. The spill was cleaned up by 11/24/91.
44	Center & East Castro Valley Blvd Castro Valley, CA	ERNS	Only the site address was listed in the ERNS database. No additional information was provided.
50	PG&E-Castro Substation 3160 Grove Way Castro Valley, CA 94546	HAZNET	Businesses generated 42 tons of waste oil and mixed oil. Waste was disposed of by recycling.
55	Unocal Service Station #3770 3020 Grove Way Castro Valley, CA 94546	HIST UST, LUST, CA FID UST, Cortese, HAZNET	The business has generated 3 tons of waste oil and liquid organic wastes. These waste streams were disposed of at a recycler. 2.5 tons of an unspecified organic liquid were disposed of by treatment. Business is an active UST site and contains three 12,000-gal USTs for storing product. Gasoline leak from UST detected in 1992. Only soil was impacted. Case was closed by lead agency in 1995.
57	(Owner/Operator not identified) 21666 Redwood Road Castro Valley, CA 94546	CHMIRS	A hypochlorite solution of unknown volume was spilled on 4/15/91. The spill was cleaned up by 4/15/91.

Listed Sites of Potential Concern Located near the Study Area

Four other sites of potential concern within one-half mile of the study area were identified from the regulatory database based their listing in the LUST database, and their status of involving a release of gasoline that has impacted groundwater (Sites 22, 23, 31, and 52). These sites are

discussed in Table 2.11-2 and shown in Figures 2.11-1a and 2.11-1b. A file review was conducted at ACEHD on 8 November 2002 to review the current status of site investigation and/or remediation at each of these four sites, and to assess their potential impact on the study area. The findings are summarized below.

Site 22 is a service station site located at the southwest corner of Castro Valley Boulevard and Redwood Road. A release from an underground storage tank was reported in 1992 and elevated levels of gasoline have been detected in the groundwater. Depth to groundwater was about ten feet bgs and groundwater flowed to the south-southeast (toward the study area) (ACEHD, 2002). The site is being monitored quarterly but an off-site investigation has not been conducted. This site is about one-quarter mile from I-580, which suggests it is unlikely to impact the study area. Since the extent of the off-site plume is unknown, excavation to groundwater in the vicinity of Redwood Road, would have potentially encountered contamination. However, the extent of excavation in this area will be limited to trenching for storm drain improvements. This trenching would not require excavation to groundwater.

Site 23 is a service station site located at the southwest corner of Castro Valley Boulevard and Redwood Road. A release from a UST was reported in 1990 and elevated levels of diesel and gasoline were detected in the groundwater. The depth to groundwater was about eight feet bgs and groundwater flowed to the south-southeast (toward the study area). The site has been monitored quarterly since 1992 (ACEHD, 2002). An initial off-site investigation was conducted to collect grab groundwater samples. This investigation detected a contaminant plume extending approximately 500 to 600 feet south of the site (ACEHD, 2002). This site is about one-fourth mile from I-580, which suggests it is unlikely to impact the study area. Although the off-site plume does not appear to extend to the study area, groundwater monitoring wells were not installed and the plume extent cannot therefore be confirmed. As a result, if construction activities were to require excavation to groundwater in the vicinity of Redwood Road, there is a potential that contamination could be encountered.

Site 31 is a service station site located near the study area where it extends onto Castro Valley Boulevard. A UST removal in 1993 identified a release and elevated levels of gasoline were subsequently detected in the groundwater. Depth to groundwater was about 12 feet bgs and groundwater flowed to the west-northwest (away from the study area). The site is being monitored annually or semi-annually. An off-site investigation has been conducted and determined that a groundwater contaminant plume extends off-site approximately 250 feet. Contaminant concentrations suggest the plume has degraded over time (ACEHD, 2002). Since the groundwater contaminant plume is migrating away from the study area, this site does not appear to be a potential concern for project development.

Site 52 is a service station site located near the study area where it extends to Grove Way. A release from an underground storage tank was reported in 1990 and minor concentrations of gasoline have been detected in the groundwater. Depth to groundwater was typically 45 to 50 feet bgs and groundwater flowed to the southwest (away from the study area). Following remediation, this case was closed in 1996. Since any residual groundwater contaminant plume would migrate away from the study area, this site does not appear to be a potential concern for project development.

Table 2.11-2: Listed Sites of Potential Concern Located near the Study Area

ID	Site Name & Address	Database Listing	Site Description	Current Site Status
22	Mobil Oil/BP/Chevron 3519 Castro Valley Blvd Castro Valley, CA 91505	CA FID UST, UST, HAZNET, LUST, HIST UST	Businesses have generated 1.5 tons of an unspecified solvent waste stream which was recycled. Site contains four active USTs. One 10,000-gal, one 8,000-gal, & one 6,000-gal. UST used to store product. Fourth UST used to store waste oil. Gasoline leak from UST detected in 1993. Groundwater was impacted. No action has been taken. A preliminary site assessment is underway.	Review of ACEHD file indicates depth to water is about 10 ft. bgs and flows toward the southeast (toward the study area). Contaminant plume includes elevated levels of TPH and MTBE. Offsite investigation has not occurred and plume has not been delineated. Distance to site suggests it is unlikely to have a significant impact on the study area but the actual extent of the contaminant plume is not known.
23	Xtra Oil Co dba Shell Oil 3495 Castro Valley Blvd Castro Valley, CA 94546	CA FID UST, LUST, Cortese	Gasoline leak from UST detected in 1989. Groundwater was impacted. USTs are listed as inactive in 1993. A preliminary site assessment was completed in 2000. Proposed abatement method is to excavate and dispose of soil.	Review of ACEHD file indicates depth to water is about 8 ft bgs and flows toward the south and southeast (toward the study area). Floating product detected onsite. Initial offsite investigation detected hydrocarbon plume extending to within 1/8th mile of I-580 and about 600 feet from the Redwood Road at Norbridge Ave. Distance to site suggests it is unlikely to have a significant impact on the study area but the confirmed extent of the contaminant plume is not known.
31	VIP Service Station/Expert Tune & Smog/Castro Valley Olympic	CA FID UST, LUST,	Businesses have generated aqueous solutions which were disposed of at a transfer station, and an unspecified oil-containing waste which was	Review of ACEHD file indicates depth to water is about 13 ft bgs. Groundwater flow direction is west to northwest (away from

ID	Site Name & Address	Database Listing	Site Description	Current Site Status
	3889 Castro Valley Blvd Castro Valley, CA 94526	HIST UST, Cortese, HAZNET	recycled. Site contains active USTs consisting of three 10,000-gal USTs. Gasoline leak from UST detected in 1993. Groundwater was impacted. Proposed abatement method is to excavate and dispose of soil.	study area). Contaminant plume extends approximately 250 feet west of site. Groundwater is monitored annually or semi-annually. A corrective action plan is being developed. Site does not appear to have any significant impact on the study area.
52	Arco Station #02152 22141 Center St Castro Valley, CA 94546	Cortese, HAZNET, UST, HIST UST, LUST	Business is an active UST site and contains one 12,000-gal and four 6,000-gal USTs for storing product, and one 500-gal UST for waste oil. Gasoline leak from UST detected in 1988. Groundwater was impacted. Proposed abatement method was to excavate soil and either dispose appropriately or treat onsite. Remediation plan was submitted in 1993 and site was closed by lead agency in 1996.	Review of the ACEHD file indicates depth to water averages 48 ft. bgs. Groundwater flow direction is southwest (away from study area). Contaminant impact to groundwater was minor. Site does not appear to have any significant impact on the study area.

Source: EDR, 2002 and ACEHD file review.

Notes: ACEHD = Alameda County Environmental Health Department.
CA FID UST = California EPA facility inventory database of historically active and inactive USTs.
CHMIRS = California Hazardous Material Incident Reporting System database of hazardous material spills.
Cortese = State list of contaminated sites.
HAZNET = California EPA list of hazardous waste generators based on manifest data.
HIST UST = Water Resource Control Board list of historical underground storage tank sites.
LUST = leaking underground petroleum storage tank sites.
UST = State Water Resource Control Board list of registered and active underground storage tanks.

Impacts

Methodology

All Phase I/ISA activities were performed in accordance with the Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, established by the American Society for Testing and Materials in Method E1527-00, and in accordance with Appendix DD of the Caltrans Project Development Procedures Manual, "Preparation Guidelines for Initial Site Assessment (ISA) Checklist for Hazardous Waste."

Evaluation of the impacts in this section was based on professional standards and the results of technical reports prepared for the project. This impact analysis assumes that the project proponent will conform to Federal building standards, grading permit requirements, and erosion control requirements, as well as to Federal environmental regulations.

Construction Impacts

West End

No buildings would be demolished in the West End. Soils near SR12 may contain aerially deposited lead from vehicle exhausts. Construction in the West End might require excavations to the depth of groundwater, and would be in an area historically used for agriculture, where soils may have previously been exposed to hazardous materials.

Central Section

The closest known site with significant hazardous materials is the former truck stop site located just north of I-80 at the Suisun Valley Road interchange. The project would not include construction in this area. As a result the potential to excavate hazardous materials associated with this site is extremely low.

East End

Soils within Caltrans right-of-way will be disturbed during construction, which may contain aerially deposited lead from vehicle exhausts. Mitigation Measure HAZ 1 for the West End would also apply to the East End.

Land that has previously been under agricultural cultivation has the potential to be contaminated with hazardous materials. Construction in this area would expose soils previously used in agriculture. Mitigation Measure HAZ 4 for the West End would also apply to the East End, and thus would reduce impacts to less than significant.

The proposed project would demolish 4 buildings (the concrete pipe installation business and three associated farm buildings) that appear to be constructed prior to 1980 and therefore would possibly create an exposure to lead-based paint and asbestos-containing materials. Implementation of Mitigation Measure HAZ 5 for the building in the Central Section would also apply to buildings in the East End to be demolished; thus, potential impacts from lead-based paint and asbestos-containing materials would be reduced to less than significant.

Operational Impacts

West End and East End
The project site would not emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

The project site does not overlap with any active hazardous materials sites included on the California Environmental Protection HAZNET database. Three sites were designated on the state regulatory list within the projected alignment but were closed in recent years. The first site was a release of chemical vapor in September 2000 when a contractor cut a pipeline. No soil or water contamination was reported. The second site was a release of gasoline affecting groundwater reported in January 1988 and the case was closed in November 1996. The third site was a release of gasoline reported in September 1995 and the case was closed in August 1997.

The project site is not located in the vicinity of a private or public airstrip, nor is it identified in the land use plan for airports. There proposed action would not impact an airstrip or conflict with an adopted land use plan for airports.

The proposed project would not conflict with the Solano County Emergency Response Plan, Chapter 7 of Title 2 of the Government Code, Emergency Services Act, or create a significant threat to loss of life or injury.

Avoidance, Minimization, and Mitigation Measures

Impact HAZ 1: Yellow thermoplastic and yellow paint used for pavement markings throughout the project area may contain lead in excess of hazardous waste thresholds. Structures at and adjacent to the project area constructed prior to 1980 may also have the potential to contain lead-based paint and asbestos-containing building materials.

Mitigation Measure HAZ 1: The presence of lead and asbestos shall require abatement and/or special construction worker health and safety procedures during demolition activities.

Impact HAZ 2: Soils within Caltrans rights-of-way that would be disturbed during construction may contain aerially deposited lead from vehicle exhausts.

Mitigation Measure HAZ 2: Soils shall be routinely tested for total and/or soluble lead to properly classify the soils and ensure that all necessary soil management and disposal procedures are followed.

Impact HAZ 3: Soils near a railroad track will be disturbed.

Mitigation Measure HAZ 3: A minimum of four soil samples from soils immediately beneath railroad tracks shall be taken. These samples shall be analyzed for Title 22 metals, total petroleum hydrocarbons (TPH), semi-volatile organic compounds (SVOCs), and polychlorinated biphenyls (PCBs).

Impact HAZ 4: Implementation of the proposed project would require excavation to the depth of groundwater at locations where reported hazardous materials releases may have affected the project area.
Mitigation HAZ 4: An investigation of groundwater quality shall be conducted during the detailed design phase in areas where reported hazardous materials releases may have occurred and where excavation would reach groundwater levels.

Impact HAZ 5: Land that has previously been under agricultural cultivation has the potential to be contaminated with hazardous materials. Construction in the West End would expose soils previously used in agriculture.

Mitigation Measure HAZ 5: During detailed design, a minimum of eight four-point composite samples from areas historically under agricultural cultivation shall be collected and analyzed for Title 22 metals and organochlorine pesticides.

Impact HAZ 6: Agricultural outbuildings may potentially be associated with hazardous material use because agricultural chemicals may have been used, stored, or mixed in the area. In addition, above-ground or underground storage tanks may have existed in West End agricultural areas.

Mitigation Measure HAZ 6: A qualified environmental professional shall take a minimum of four soil samples from areas adjacent to each agricultural outbuilding affected by the project. These samples shall be analyzed for Title 22 metals, organochlorine pesticides, and total petroleum hydrocarbons (TPH) as gasoline, diesel, and motor oil. If evidence of contaminated soil results from the sampling, further remediation would be conducted.