4.6 HAZARDS AND HAZARDOUS MATERIALS

This section addresses the hazards to the public resulting from the use or disposal of hazardous materials in the area proposed to be added ("Added Area") to the Existing Project Area by the Sacramento Army Depot Redevelopment Plan Third Amendment ("Amendment"), as well as anticipated effects of known or suspected hazardous substance contamination.

4.6.1 ENVIRONMENTAL SETTING

HAZARDOUS MATERIALS

Terminology

Under Title 22 of the California Code of Regulations (CCR), a hazardous material is defined as a substance or combination of substances that may cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating illness, or may pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of, or otherwise managed (CCR, Title 22, Chapter 11, Article 2, Section 66261.10).

Hazardous wastes are hazardous substances that no longer have practical use, such as materials that have been discarded, discharged, spilled, or contaminated or are being stored until they can be properly disposed of. According to Title 22 of the California Code of Regulations, hazardous materials and hazardous wastes are classified according to four properties: toxic, ignitable, corrosive, and reactive (CCR, Title 22, Chapter 11, Article 3).

- Toxic substances may cause short-term or long-lasting health effects, ranging from temporary effects to permanent disability or death. Toxic substances can cause eye or skin irritation, disorientation, headache, nausea, allergic reactions, acute poisoning, chronic illness, and other adverse health effects, depending on the level of exposure. Carcinogens (substances known to cause cancer) are a special class of toxic substances. Examples of toxic substances include most heavy metals, pesticides, and benzene (a carcinogenic component of gasoline).
- Ignitable substances, such as gasoline, hexane, and natural gas, are hazardous because of their flammable properties.
- Corrosive substances, such as sulfuric acid (battery acid) and lye, can damage other materials or cause severe burns upon contact.
- Reactive substances, such as explosives, pressurized canisters, and pure sodium metal (which reacts violently when exposed to water), may cause explosions or generate gases or fumes.

Soil that is excavated from a site containing hazardous materials is a hazardous waste if it exceeds specific CCR Title 22 criteria. Remediation (cleanup) of hazardous wastes found at a project site is generally required if those materials are excavated. Cleanup requirements are determined on a case-by-case basis by the agency with lead jurisdiction over the project.

Existing Conditions

The Added Area is a moderately developed area with numerous commercial and industrial uses. Several sites in or adjacent to the Added Area have been identified by Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), the California Environmental Protection Agency (Cal/EPA) or the State Water Resources Control Board as having hazardous substance releases or leaking underground fuel tanks (LUFTs). These sites are identified in Table 4.6-1 Confirmed Contamination Sites. In addition, many sites were identified by State and/or Federal databases as hazardous waste generators, underground storage tank (UST) permit holders, or as responsible parties who had successfully completed cleanup. These sites are identified in Table 4.6-1 as Potential Contamination Sites. Finally, several other potential sites were identified during an area reconnaissance. These sites are identified in Table 4.6-1 as Potential Contamination Sites Identified During Drive-By.

The Added Area contains a range of uses, including retail sales, office, warehouse, restaurants, open storage yards, industrial uses, automotive repair, landscaped areas and vacant areas. Light industrial uses such as glass fabrication, machine shops, compressed gas manufacture and clothing manufacture are also present. Sources of contamination within the Added Area include both commercial and industrial uses. In addition, existing structures for all types of land uses may contain asbestos, lead-based paint and polychlorinated biphenyl oils (PCBs).

Hazardous materials stored at the on-site businesses or used in current on-site activities and operations include fuel in underground storage tanks, oil, waste oil, solvents, paints and thinners, pesticides, propane, welding gases, adhesives, printing materials, swimming pool chemicals, office materials and business and household maintenance materials. In addition, the Added Area contains numerous transformers (both pole-mounted and pad-mounted) that are not anticipated to, but could contain PCBs. Ceiling and floor tile likely to contain asbestos has been observed in several buildings. Areas of older drywall can also be considered likely to contain asbestos in joint and surfacing plasters, but are only considered a hazard when they become friable.

Groundwater in the Added Area is encountered at depths of between 35 to 40 feet below the existing ground surface. The flow of groundwater in the Added Area is toward the south and southwest.

Table 4.6-1
Identified Contamination Sites in the Added Area

Property Description	Property Address	Type of Contamination and Required Action (if known)	Level of Concern
Confirmed Contamination Sites*			
Unknown	8600 Elder Creek Rd	Oil and raw waste released	Moderate to High
Unknown	8360 Elder Creek	50 gallons of diesel, 2 gallons of glycol ether & biphenol	Moderate
Unknown	6401 Florin Perkins Rd	200 gallons of gasoline released, cleaned up by contractor	Moderate to High
Unknown	8825 Elder Creek Rd	Unknown quantity of waste oil released	Moderate

Property Description	Property Address	Type of Contamination and Required Action (if known)	Level of Concern
Unknown	4949 Florin Perkins Rd	55 gallons of antifreeze illegally dumped into Morrison Creek	Low to Moderate
ARA Services	6211 Power Inn Rd	Gasoline release reported, soil was excavated and treated	Moderate
ARCO #5424	8024 Elder Creek Rd	Gasoline release reported, leak being confirmed	Moderate to High
B.C. Stocking Distributors	6401 Florin Perkins Rd	Diesel release reported, soil was excavated and treated	Moderate to High
Bartick Property	7011 Power Inn Rd	Gasoline release reported, soil only impacted	Moderate to High
California Cascade Inc.	7701 17th Ave	Gasoline release reported, soil only impacted, Registered Underground Storage Tank	Moderate to High
Ellis Roofing Company	8201 Elder Creek Rd	Gasoline release reported, soil only impacted, Registered Underground Storage Tank	Moderate to High
Fast Stop Food #6	5601 Wilkinson St	Gasoline release reported, soil only impacted, Registered, Underground Storage Tank	Moderate to High
Fleming Co.	8301 Fruitridge Rd	Diesel release reported, soil only was excavated and treated	Moderate to High
Unknown (Former service station)	6300 Power Inn Rd	Gasoline release reported, soil only impacted	Moderate to High
Gelco Insituform	8565 Elder Creek Rd	Gasoline release reported, soil impacted	Moderate to High
Hokanson Building Block Co.	4751 Power Inn Rd	Gasoline release reported, aquifer affected, Registered Under Ground Storage Tank	Moderate to High
Kalwani Property	460 Power Inn Rd	Hydraulic oil release, soil only impacted	Moderate to High
M&B	8137 Elder Creek Rd	Gasoline release reported, soil only impacted	Moderate to High
M&P Repair	5743 Power Inn Rd	Gasoline release reported, soil only impacted	Moderate to High
Palm Iron /Bridge Works	8845 Elder Creek Rd	Gasoline release reported, soil only impacted, Registered Underground Storage Tank	Moderate to High
Rainbow Thrift & Depot	5761 Power Inn Rd	Gasoline release reported, soil only impacted	Moderate to High
Regent Mini Mart	7900 Fruitridge Rd	Gasoline release reported, aquifer affected, Registered Underground Storage Tank	Moderate to High

Property Description	Property Address	Type of Contamination and Required Action (if known)	Level of Concern
Sacramento Crane Co.	7037 Power Inn Rd	Gasoline release	Moderate to High
Sozzi Trust	8542 Elder Creek Rd	Waste oil release reported, soil only impacted	Moderate to High
Tune Up Master/Dairy Queen	7070 Fruitridge Rd	Hydrocarbon release, soil only impacted	Moderate to High
Pine Mountain Corp.	6001 Power Inn	Cerclis-No further remedial action planned, State Site	Moderate to High
Curley SC and L Cleaners	7206 Fruitridge Rd	Dry cleaning solvents	Moderate to High
Unknown	Belleview Ave and Lemon Hill Ave	55 gallons of Diethylamino ethane and Sodium Hyd. released	Moderate to High
Unknown	2324 76th St	Unknown quantity of drug lab residue released	Moderate to High
Potential Contamination Sites*			
Elder Creek Oil and Tire Change	8780 Elder Creek Rd	Solid Waste Landfill	Moderate
Elder Creek Recovery and Transfer Station	8642 Elder Creek Rd	Solid Waste Landfill	Moderate
L and D Waste Composting	8642 Elder Creek Rd	Solid Waste Landfill-green waste	Low to Moderate
Sierra Tire Inc.	7220 Fruitridge Rd	Solid Waste Landfill-tires	Moderate
Silva's Tire	4401 69th St	Solid Waste Landfill-tires	Low to Moderate
Bob's Collision Repair Facility	4225 Power Inn Rd	Resource Conservation and Recovery Act (RCRA) small quantity generator	Low to Moderate
Buzz Oates Enterprises	8615 Elder Creek Rd	RCRA small quantity generator	Moderate
Dopaco Inc.	6331 Power Inn Rd	RCRA small quantity generator	Moderate
Emmick Enterprises	5877 Power Inn Rd	RCRA small quantity generator	Moderate
Former Goss Jewett Corporation Facility	4301 Power Inn Rd	RCRA large quantity generator	High
International Truck Service	4273 Power Inn Rd	RCRA small quantity generator	Moderate
Jackson Construction	5665 Power Inn Rd	RCRA large quantity generator	High
Jiffy Lube International #383	4095 Power Inn Rd	RCRA small quantity generator, Registered Underground Storage Tank	Moderate
M&P Truck and Auto Repair	5743 Power Inn Rd	RCRA small quantity generator	Moderate
Montgomery Marble Co.	6097 Power Inn Rd	RCRA small quantity generator	Moderate

Property Description	Property Address	Type of Contamination and Required Action (if known)	Level of Concern
Pacific Corrugated Pipe Co.	5999 Power Inn Rd	RCRA small quantity generator, Registered Underground Storage Tank	Moderate
Quadra Color	7917 Fruitridge Rd	RCRA small quantity generator	Moderate
Radiator Specialties #6	6161 Power Inn Rd	RCRA small quantity generator	Moderate
Safewaste Corp	8360 Elder Creek Rd	RCRA small quantity generator	Moderate
Shanahan's Auto Body	6211 Power Inn Rd	RCRA small quantity generator	Moderate
Tony's Auto Body and Truck	8580 Elder Creek Rd	RCRA small quantity generator	Moderate
Tri State Tank West	8135 Elder Creek Rd	RCRA small quantity generator	Moderate
Valley Nail Supply Co.	5400 Power Inn Rd	RCRA small quantity generator	Moderate
Shell Oil Co.	8062 Florin Rd	RCRA small quantity generator	Moderate
Granite Construction Co	3801 Power Inn Rd	RCRA small quantity generator	Moderate
Paul Gao Dba Cear	8200 Berry Ave Suite 140	RCRA large quantity generator	High
Roadway Package System Inc	8205 Berry Ave	RCRA small quantity generator	Moderate
Shanahan's Auto Body	5715 Power Inn Rd Unit A	RCRA-No longer regulated	Moderate
Fire Master Kilns	8130 Junipero St	RCRA-No longer regulated	Moderate
Collision Repair Facility	4225 Power Inn Rd	RCRA-No longer regulated	Moderate
Arco #5424/5182	8024 Elder Creek Rd	Registered Underground Storage Tank	Low to Moderate
Clementina Ltd.	4635 Power Inn Rd	Registered Underground Storage Tank	Low to Moderate
Fire Department Engine #10	5642 66th St	Registered Underground Storage Tank	Low to Moderate
Hardwoods	6935 Power Inn Rd	Registered Underground Storage Tank	Low to Moderate
Jackson and Eckstrom	4141 Power Inn Rd	Registered Underground Storage Tank	Low to Moderate
Larry Odbert/ Warren N. Hunt	6347 Florin Perkins Rd	Registered Underground Storage Tank	Low to Moderate
Manley & Sons Trucking Inc	8896 Elder Creek Rd	Registered Underground Storage Tank	Low to Moderate
Olympian Oil Card Lock Facility	3950 Power Inn Rd	Registered Underground Storage Tank	Low to Moderate
Redi-gro Corporation	8909 Elder Creek Rd	Registered Underground Storage Tank	Low to Moderate
Sacramento Valley Crane Service	7037 Power Inn Rd	Registered Underground Storage Tank	Low to Moderate

Property Description	Property Address	Type of Contamination and Required Action (if known)	Level of Concern
Sozzi Trust	8536 Elder Creek Rd	Registered Underground Storage Tank	Low to Moderate
Thunder Bird Moulding	6001 Power Inn Rd	Registered Underground Storage Tank	Low to Moderate
Vacounti American Sanitation	7011 Power Inn Rd	Registered Underground Storage Tank	Low to Moderate
Walker Precast Concrete Production	7899 Fruitridge Rd	Registered Underground Storage Tank	Low to Moderate
Western Material Suppply	8866 Elder Creek Rd	Registered Underground Storage Tank	Low to Moderate
Frontier Fence Company	6837 Power Inn Rd	Registered Underground Storage Tank	Low to Moderate
Sacramento Ford Tractor Inc.	3850 Power Inn Rd	Registered Underground Storage Tank	Low to Moderate
Sacramento Valley Box Co.	8169 Junipero St	Registered Underground Storage Tank	Low to Moderate
Clark-Cadman Inc.	8110 Junipero St	Registered Underground Storage Tank	Low to Moderate
Roadway Express Systems	8205 Berry Ave	Registered Underground Storage Tank	Low to Moderate
Arco #5424/5182	8024 Elder Creek Rd	Registered Underground Storage Tank	Low to Moderate
BC Stocking Distributing	6401 Florin Perkins Rd	Registered Underground Storage Tank	Low to Moderate
Capitol Iron Works Inc.	7009 Power Inn Rd	Registered Underground Storage Tank	Low to Moderate
Potential Sites Identified During Drive-By			
Redi Gro	8909 Elder Creek Rd	Potential for fertilizer chemicals and related substances	Moderate to High
Dewey Pest Control	5310 Power Inn Rd	Potential for pest control chemicals and related substances	Moderate to High
Montana Express	8900 Elder Creek Rd	Potential for petroleum based products and related substances	Moderate to High
Lorenzo Tires	8100 block Elder Creek	Potential for petroleum based products and related substances	Moderate to High
Car Fix Master	8100 block Elder Creek	Potential for petroleum based products and related substances	Moderate to High
Berkfield Racing Restoration	8100 block Elder Creek	Potential for petroleum based products and related substances	Moderate to High
Rally Muffler	8100 block Elder Creek Rd	Potential for petroleum based products and related substances	Moderate to High

Property Description	Property Address	Type of Contamination and Required Action (if known)	Level of Concern
Sacramento Street Gear	6441 Power Inn Rd	Potential for petroleum based products and related substances	Moderate to High
Trans Tech Transmissions	8101 Elder Creek Rd	Potential for petroleum based products and related substances	Moderate to High
D&R Auto Body and Paint	6161 Power Inn Rd Unit A	Potential for petroleum based products and related substances	Moderate to High
Precision Collision Repair	6161 Power Inn Rd Unit B	Potential for petroleum based products and related substances	Moderate to High
Precision Brake and Suspension	6161 Power Inn Rd Unit C	Potential for petroleum based products and related substances	Moderate to High
Pettigrew & Sons Casket Co.	6151 Power Inn Rd	Potential for hazardous chemicals and related substances	Moderate to High
All Transmissions	6101 Power Inn Rd	Potential for petroleum based products and related substances	Moderate to High
Advance Auto Body and Paint	6097 Power Inn Rd	Potential for petroleum based products and related substances	Moderate to High
De Anza Auto Center	6087 Power Inn Rd	Potential for petroleum based products and related substances	Moderate to High
Express Auto Detailing	6087 Power Inn Rd	Potential for hazardous chemicals and related substances	Moderate to High
Elder Creek Auto Repair	8671 Elder Creek Rd #700	Potential for petroleum based products and related substances	Moderate to High
Viking Steel Inc.	8610 Elder Creek Rd	Potential for hazardous chemicals and related substances	Moderate to High
Mike's Truck Repair	8542 Elder Creek Rd	Potential for petroleum based products and related substances	Moderate to High
Commercial Cardlock Facility	8500 block Elder Creek Rd	Potential for petroleum based products and related substances	Moderate to High
Megg Auto Repair	6400 Florin Perkins Rd	Potential for petroleum based products and related substances	Moderate to High
Billy's Auto Tech	8394 Elder Creek Rd	Potential for petroleum based products and related substances	Moderate to High
L&M Auto Center	8188 Elder Creek Rd	Potential for petroleum based products and related substances	Moderate to High
Ace Auto Repair and Smog	8186 Elder Creek Rd	Potential for petroleum based products and related substances	Moderate to High
North Star Auto Body and Paint	8184 Elder Creek Rd	Potential for petroleum based products and related substances	Moderate to High
Pierre Arrow Mechanical	8182 Elder Creek Rd	Potential for petroleum based products and related substances	Moderate to High

Property Description	Property Address	Type of Contamination and Required Action (if known)	Level of Concern
Pierre Arrow Collision Center	8180 Elder Creek Rd	Potential for petroleum based products and related substances	Moderate to High
Victory Auto Body and Paint	8836 Elder Creek Unit D	Potential for petroleum based products and related substances	Moderate to High
Zuprinco Printing	5310 Power Inn Rd	Potential for hazardous chemicals and related substances	Moderate to High
Abe Janitorial Supply	6015 Power Inn Rd Unit K	Potential for hazardous chemicals and related substances	Moderate
Mr. Moulding	6015 Power Inn Rd Unit E	Potential for hazardous chemicals and related substances	Moderate
Nail Stuff Inc.	6015 Power Inn Rd Unit G	Potential for hazardous chemicals and related substances	Moderate
American Moulding Corp.	6043 Power Inn Rd	Potential for hazardous chemicals and related substances	Moderate
Poggen Pohl Kitchen and Bath	6015 Power Inn Rd Unit C/D	Potential for hazardous chemicals and related substances	Moderate
Neon and Sign Fabricator	4111 Power Inn Rd	Potential for hazardous chemicals and or gases	Moderate
Capitol Sweeper Service	4141 Power Inn Rd	Potential for petroleum based products and related substances	Moderate
Valley Tool Repair	4131 Power Inn Rd	Potential for petroleum based products and related substances	Moderate
Mighty Auto Parts	4141 Power Inn Rd Unit D	Potential for petroleum based products and related substances	Moderate
Kings Bee Upholstery	8101 Elder Creek Rd Unit N	Potential for hazardous chemicals and related substances	Moderate
American Building Supply	8360 Elder Creek Rd	Potential for hazardous chemicals and related substances	Moderate
Unknown Industrial	8604 Elder Creek Rd	Potential for hazardous chemicals and related substances	Moderate
California Landscape Associates	8671 Elder Creek Rd	Potential for hazardous chemicals and related substances	Moderate
General Truss Co. Inc.	8536 Elder Creek Rd	Potential for hazardous chemicals and related substances	Moderate
Home Mart	8178 Elder Creek Rd	Potential for hazardous chemicals and related substances	Moderate
Sunshine Pad and Foam Recycling	8172 Elder Creek Rd	Potential for hazardous chemicals and related substances	Moderate
Levin's Auto Supply	8141 Elder Creek Rd	Potential for petroleum based products and related substances	Moderate

Property Description	Property Address	Type of Contamination and Required Action (if known)	Level of Concern
Porter Wood Products	8842 Elder Creek Rd Unit C	Potential for hazardous chemicals and related substances	Moderate
Sabers Sheet Metal	8844 Elder Creek Rd Unit B/D	Potential for hazardous chemicals and related substances	Moderate
Pile Construction	8844 Elder Creek Rd Unit C	Potential for hazardous chemicals and related substances	Moderate
Bristol Marine	8836 Elder Creek Rd Unit B	Potential for hazardous chemicals and related substances	Moderate
Full Court Inc.	8711 Elder Creek Rd	Potential for hazardous chemicals and related substances	Moderate
Cedar Valley Transport	8800 Elder Creek Rd	Potential for petroleum based products and related substances	Low
Dynasty Tools	8836 Elder Creek Rd	Potential for petroleum based products and related substances	Low
Precision Pulley and Idler	8671 Elder Creek Rd	Potential for hazardous chemicals and related substances	Low
Pacific Lumber	8300 block Elder Creek Rd	Potential for hazardous chemicals and related substances	Low
ABC Supply Co.	8201 Elder Creek Rd	Potential for hazardous chemicals and related substances	Low
Industrial Caster and Wheel Co.	5580 Power Inn Rd	Potential for hazardous chemicals and related substances	Low
Excalibur Food Dehydrators	6083 Power Inn Rd	Potential for hazardous chemicals and related substances	Low
Above Board Electronics	5580 Power Inn Rd	Potential for hazardous chemicals and related substances	Low
Unknown Industrial	6331 Power Inn Rd	Potential for hazardous chemicals and related substances	Low

* Environmental First Search 11/17/03

The Added Area's existing land uses are mainly residential west of Power Inn Road with some scattered public and institutional land uses, and primarily industrial east of Power Inn Road. Commercial uses are mostly concentrated on Power Inn Road, extending from 14th Avenue on the north, to the southern end of the Added Area at 53rd Avenue. Industrial uses are concentrated along the east side of Power Inn Road south of Elder Creek, and the south side of Elder Creek Road east of Power Inn Road (see previous figure 4.1-3, Zoning Designations).

Nonresidential land uses in the Added Area include commercial uses such as strip retail centers, small multi-tenant one story office buildings, liquor/convenience stores, service stations, automotive repair shops, car washes, restaurants and vacant sites. Industrial uses such as metal fabrication, wood products, heavy industry processing, auto yards and distribution and warehousing are also present, as well as the South Area Waste Transfer Station. Sources of contamination within the

Added Area include both commercial and industrial uses. In addition, existing structures for all types of land uses may contain asbestos, lead-based paint and PCBs.

Army Depot Contamination Issues

The 485-acre former Sacramento Army Depot, Superfund National Priorities List site, is located immediately adjacent to the Added Area and as such is a due diligence consideration for any properties in the Added Area. The Depot was established in 1945, and served as a supply depot primarily responsible for the receipt, storage, issuance, maintenance, and disposal of electronics supplies. Wastes from metal-plating operations, spray booth operations, and degreasing operations were discharged to unlined sewage lagoons, burned, or buried on the site. These practices had resulted in the contamination of some on-site soils at the former Oxidation Lagoons and Burn Pits and in other areas, as well as the groundwater beneath the site. Soil contamination was also shown in drainage ditches leading to the Old Morrison Creek, which flows around the southern boundaries of former Depot and through the Added Area. Approximately 50,000 people live within three miles of the site. The groundwater contamination at the site is in both the shallow and intermediate water-bearing zones and has migrated off site.

Groundwater is reportedly contaminated with various volatile organic compounds (VOCs), and soils at the former Oxidation Lagoons contain heavy metals including lead, cadmium, and chromium. Surface soils from on-site drainage ditches are contaminated with heavy metals including cadmium. Potential health threats to people include drinking, eating, breathing, or coming into direct contact with contaminated soils or groundwater.

This site is reportedly being addressed in five long-term remedial phases focusing on cleanup of the entire site, groundwater, Tank 2, the oxidation lagoons, and the burn pits.

Entire Site: The Army has been investigating the nature and extent of contamination associated with the site. The investigations have identified the contaminants and recommended alternatives for final cleanup. Investigations focused on identifying all areas of soil contamination, especially those that are affecting groundwater.

Groundwater: In 1990, the Army began operating a groundwater treatment facility. Seven groundwater vertical extraction wells pump the water to the treatment plant where hydrogen peroxide is added; the water then passes through a bank of ultraviolet lights to be decontaminated and then discharged into a sanitary sewer. Recently, additional extraction wells (one vertical and two horizontal) have been installed to expand the capture zone and decrease the time necessary to achieve remediation objectives. Also, the Army began pumping from an existing on-site C-zone extraction well to capture contamination that has migrated into the deeper aquifer. The groundwater treatment is expected to continue indefinitely. The Army has conducted their first five-year review which focused on the groundwater treatment system for the South Post Burn Pits. The goals of this first five-year review included assessing: (1) the effectiveness of the hydraulic containment of the volatile organic compounds (VOC) plume; (2) the reliability of the South Post treatment plant during the past five years of operations; and (3) changes in threatened/susceptible receptors. The analytical results indicate the remediation activities remain protective of human health and the environment. It has been determined that the migration of contaminated ground water has stabilized and there is no ground water discharge to surface water.

Tank 2: A study of the contamination around Tank 2 was completed in 1991. The final cleanup remedy, selected in late 1991, called for soil vapor extraction to remove the VOCs from the soil. All cleanup activities were completed in the summer of 1994. In June 1996, the Army conducted Tank 2 reconfirmation sampling to confirm the previous results, since the data packages the laboratories provided were insufficient to verify the quality of the analyses, and the analyses were not validated using EPA guidelines. The reconfirmation sampling analytical results confirmed the soil contaminated at Tank 2 area has been remediated, and the site is now considered clean.

Oxidation Lagoons: In 1988, the Army began a study of the nature and extent of contamination related to the oxidation lagoons. The final cleanup remedy, selected in the fall of 1992, was soil washing to remove heavy metal contamination. This remedy failed. The new cleanup remedy, solidification of contaminated soil, was selected to remove heavy metal contamination. The solidification of contaminated soil with heavy metal has been completed and the Final Remediation Report was submitted to agencies.

Burn Pits: In 1991, the Army began a study of the contamination in and around the burn pits. A remedy was selected in 1993 that divides the cleanup into two phases. The first phase uses soil vapor extraction to remove VOCs from the soil. This cleanup action is now complete. The second phase of cleanup, solidification of contaminated soil with heavy metals, has been completed, and the Final Remediation Report was submitted to agencies.

The Army has cleaned up the contaminated soil surrounding Tank 2, at the Oxidation Lagoons area, and at the Burn Pits. The operation of the groundwater treatment facility will continue to protect area residents from exposure to contaminated groundwater from the Sacramento Army Depot site while final cleanup activities are being planned. The site is on the Final NPL; overall the migration of contaminated ground water has stabilized and there is no ground water discharge to surface water, and adequate controls are in place to prevent human exposure to contamination.

Potential Receptors

The sensitivity of potential receptors in the areas of known or potential hazardous materials contamination is dependent primarily on an individual's potential pathway for exposure. Hazardous materials exposure in the Added Area could occur through exposure to groundwater and/or soil contamination during construction. With respect to this possible form of hazardous materials exposure, construction workers have the highest potential for exposure to groundwater and/or soil contamination. However, other potential receptors in the Added Area include home health care facilities and residential areas. These receptors are more likely to be exposed to fugitive dust created during demolition and construction.

4.6.2 REGULATORY SETTING

HAZARDOUS MATERIALS

Federal

Many agencies regulate hazardous substances. These include federal agencies such as the Environmental Protection Agency (EPA), the Occupational Safety and Health Administration, the Nuclear Regulatory Commission (NRC), the U.S. Department of Transportation (DOT), and the

National Institutes of Health (NIH). The following federal laws and guidelines govern hazardous substances:

- Federal Water Pollution Control Act
- Clean Air Act
- Occupational Safety and Health Act
- Federal Insecticide, Fungicide, and Rodenticide Act
- Comprehensive Environmental Response, Compensation, and Liability Act Guidelines for Carcinogens and Biohazards
- Superfund Amendments and Reauthorization Act, Title III
- Resource Conservation and Recovery Act
- Safe Drinking Water Act
- Toxic Substances Control Act

At the federal level, the principal agency regulating the generation, transport, and disposal of hazardous substances is the EPA, under the authority of the Resource Conservation and Recovery Act (RCRA). The EPA regulates hazardous substance sites under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Applicable federal regulations are contained primarily in Titles 29, 40, and 49 of the Code of Federal Regulations (CFR).

Hazardous Substances Handling Requirements

The RCRA established an all-encompassing federal regulatory program for hazardous substances that is administered by EPA. Under the RCRA, EPA regulates the generation, transportation, treatment, storage, and disposal of hazardous substances. The RCRA was amended in 1984 by the Hazardous and Solid Waste Act (HSWA), which affirmed and extended the "cradle-to-grave" system of regulating hazardous substances. The HSWA specifically prohibits the use of certain techniques for the disposal of some hazardous substances.

Under the RCRA, individual states may implement their own hazardous substance management programs as long as those programs are consistent with, and at least as strict as, the RCRA. The EPA must approve state programs intended to implement the RCRA requirements.

Hazardous Substances Worker Safety Requirements

The federal Occupational Safety and Health Administration (OSHA) is the agency responsible for ensuring worker safety. OSHA sets federal standards for implementation of training in the workplace, exposure limits, and safety procedures in the handling of hazardous substances (as well as other hazards). OSHA also establishes criteria by which each state can implement its own health and safety program.

State

The Cal/EPA and the Office of Emergency Services (OES) of the State of California establish rules governing the use of hazardous substances in the state. The SWRCB has primary responsibility to protect water quality and supply.

Applicable State laws include the following:

- Porter Cologne Water Quality Act
- Public safety and fire regulations and building codes
- Hazardous Substance Control Law
- Hazardous Substances Information and Training Act
- Hazardous Substances Release Response Plans and Inventory Act
- Air Toxics Hot Spots and Emissions Inventory Law
- Underground Storage of Hazardous Substances Act

Within Cal/EPA, the Department of Toxic Substance Control ("DTSC" - formerly the Department of Health Services) has primary regulatory responsibility for the generation, transport and disposal of hazardous substances under the authority of the Hazardous Waste Control Law (HWCL). DTSC can delegate this enforcement role to local jurisdictions that enter into agreements with the state agency. State regulations applicable to hazardous substances are indexed in Title 26 of the California Code of Regulations (CCR).

Hazardous Substances Handling Requirements

In California, the Hazardous Waste Management Program (HWMP) regulates hazardous waste through its permitting, enforcement, and Unified Program activities. The HWMP is authorized by EPA to implement the RCRA program in California and develops regulations, policies, guidance, technical assistance, and training to ensure the safe storage, treatment, transportation, and disposal of hazardous wastes.

Regulations implementing the HWCL list 791 hazardous chemicals and 20 or 30 more common substances that may be hazardous; establish criteria for identifying, packaging and labeling hazardous substances; prescribe management of hazardous substances; establish permit requirements for hazardous substances treatment, storage, disposal and transportation; and identify hazardous substances that cannot be deposited in landfills.

Under both the RCRA and the HWCL, the generator of a hazardous substance must complete a manifest that accompanies the waste from the point of generation to the ultimate treatment, storage or disposal location. The manifest describes the waste, its intended destination, and other regulatory information about the waste. Copies must be filed with the DTSC. Generators must also match copies of waste manifests with receipts from the treatment, storage or disposal facility to which it sends waste.

Hazardous Substances Worker Safety Requirements

Cal/OSHA assumes primary responsibility for developing and enforcing workplace safety regulations within California. Cal/OSHA standards are more stringent than federal regulations.

Cal/OSHA regulations concerning the use of hazardous substances include requirements for safety training, availability of safety equipment, hazardous substances exposure warnings, and emergency action and fire prevention plan preparation. Cal/OSHA enforces the hazard communication program regulations, which include provisions for identifying and labeling hazardous substances, describing the hazards of chemicals, and documenting employee-training programs.

Both federal and State laws include special provisions for hazard communication to employees who work with and/or encounter hazardous materials and wastes. The training must include safe methods for handling hazardous substances, an explanation of Material Safety Data Sheets, use of emergency response equipment, implementation of an emergency response plan, and use of personal protective equipment.

Local Regulations

Sacramento County is responsible for enforcing the state regulations, both in the city and the county, governing hazardous substance generators, hazardous substance storage, and underground storage tanks (including inspections, enforcement, and removals). The Sacramento County Hazardous Materials Division (HMD) regulates the use, storage, and disposal of hazardous substances in Sacramento County by issuing permits, monitoring regulatory compliance, investigating complaints, and other enforcement activities. HMD reviews technical aspects of hazardous substance site cleanup operations and oversees remediation of certain contaminated sites resulting from leaking underground storage tanks. HMD is also responsible for providing technical assistance to public and private entities that seek to minimize the generation of hazardous substance.

Goals and policies have been developed by the City and County of Sacramento concerning the management of hazardous substances to protect human health and the environment (Sacramento County Hazardous Waste Management Plan, 1988; 1986 to 2006 General Plan for Sacramento, 1987).

Sacramento City General Plan

The following are relevant City of Sacramento General Plan goals and policies that apply to the Added Area:

Goal A: Provide for the health and safety of the citizens of Sacramento and for the protection of the environment by reducing exposure to hazardous substances and waste.

- Goal A Policy 1: Work with the County, State, and federal agencies and responsible parties to identify, contain and cleanup sites that contain hazardous substances.
- Goal A Policy 4: Coordinate with Sacramento County, the State and federal governments to ensure compatibility among plans, programs, regulations and safeguards.

4.6.3 ENVIRONMENTAL IMPACTS

METHODOLOGY

This analysis is based on a review of current lists made available by regulatory agencies with jurisdiction over storage, monitoring, and cleanup of hazardous wastes. The boundaries of the proposed Added Area were reviewed to determine existing and planned land use and potential exposure to Hazardous Materials.

THRESHOLDS OF SIGNIFICANCE

A project would normally have a significant hazards impact if, through construction activities, attracting people to the site, or use of hazardous materials, 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 reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment; or
- Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, could create a significant hazard to the public or the environment.
- For a project located within a known or potential contaminated site, the project results in a safety hazard for people residing or working in the Added Area.

IMPACTS OF THE PROPOSED PROJECT

Impact 4.6-1 Possible Delays to or Interference with Investigation or Remediation Activities Due to Redevelopment Projects.

Under the direction of local and State agencies, assessment and remediation of soil and water contamination is being conducted at a number of release sites throughout the Added Area. Proposed redevelopment activities could affect these sites through adjustments in cleanup schedules, remedial designs, and remedial actions when determining final cleanup levels. However, these adjustments should not prevent assessment and remediation activities at these sites from continuing in accordance with federal, state, and local regulations to protect human health and the environment. Also, ongoing activities at identified release sites may delay or limit some proposed land uses at or near those sites.

The severity of contamination or level of remediation effort at these sites may to a certain extent limit future land uses by the recipients on a site-specific level. Regulatory review will ensure that any site-specific land use limitations are identified and considered. Based on the results of further review and investigation, the regulatory agencies overseeing these sites may, where appropriate, place limits on land reuse through deed restrictions on conveyances and use restrictions on leases. The responsible parties may also retain right of access to other properties to inspect monitoring wells or conduct other remedial activities. This impact is ***less than significant***.

Mitigation Measures

None required.

Impact 4.6-2 Potential Redevelopment of Previously Identified or Unidentified Contaminated Sites

Redevelopment activities often involve the rehabilitation or reuse of older properties that may result in the discovery of previously unidentified contaminated properties, or provide for reuse of identified, but not yet remediated sites. Historical uses which have created releases of hazardous substances or petroleum products may be masked by the present or recent uses of the property. Excavation could damage unidentified underground storage tanks with some remaining petroleum products that could result in the exposure of construction workers and result in associated significant adverse health effects. In addition, construction activity could uncover unknown sites of soil contamination that could result in the exposure of construction workers and result in associated significant adverse health effects. This would be a ***significant impact***.

Mitigation Measures

4.6.2a A thorough examination of past property uses shall be required for redevelopment projects involving demolition or reuse of older properties or construction on vacant land, prior to demolition or construction. This examination shall conform to the Phase I Environmental Site Assessment process established by ASTM (American Society for Testing and Materials - E1527-00), and shall include a site reconnaissance, a review of regulatory databases, interviews with persons knowledgeable of the property, and a review of past property uses using appropriate historical sources. A Phase II Environmental Site Assessment shall be conducted if deemed necessary based on the Phase I Environmental Site Assessment results.

4.6-2b If discolored soil, vapors or contaminated groundwater are encountered during construction activities, all work shall cease until a qualified environmental professional assesses the situation and appropriate action is taken to ensure the safety of workers and the public.

Significance after Mitigation

Less than significant.

Impact 4.6-3: Potential Asbestos Exposure Hazards during Renovation or Demolition of Existing Structures with Asbestos Containing Material

Renovation, demolition, and excavation of existing structures and facilities with asbestos containing materials (ACM) may occur as a result of redevelopment actions. Disturbance of ACM may result in asbestos exposure hazards to human health and the environment. Renovation and demolition activities would be subject to all applicable federal, state, and local regulations to minimize potential risks to human health and the environment. ACM in historic properties would be managed in accordance with National Park Service and U.S. Department of Housing and Urban Development (HUD) guidance. This impact would be ***less than significant***.

Mitigation Measures

None required.

Impact 4.6-4: Potential Lead Exposure from Reuse Activities Involving Buildings with Lead-Based Paint (LBP)

Redevelopment activities may involve the demolition or renovation of existing structures that may contain lead-based paint. Human health or environmental exposure to lead may result if lead-based paint is chipping and then accidentally ingested. Property recipients would be notified of the potential of lead-based paint prior to property disposition and during real estate transactions under State Real Estate law. Lead-based paint in historic properties would be managed in accordance with National Park Service and HUD guidance. Lead-based paint would be removed and disposed of in these facilities in accordance with applicable federal, state, and local regulations to minimize potential risks to human health and the environment, thus this impact would be ***less than significant***.

Mitigation Measures

None required.

4.6.4 REFERENCES – HAZARDS AND HAZARDOUS MATERIALS

- *Sacramento Army Depot Fact Sheet*, United States Environmental Protection Agency – Region 9, dated June 15, 2000.
- *Environmental First Search*, Data Base Summary, 2003
- *Superfund Information Systems* – CERCLIS: Site Information, http://cfpub.epa.gov/supercpad/cursites/csitinfo.cfm?id=0902715