

4.3 – HAZARDS AND HUMAN HEALTH

This section describes the existing conditions of the Redevelopment Project Area and analyzes the potential hazardous material and human safety related impacts associated with implementing the proposed project. This analysis identifies any hazardous materials or other human health hazards that may impact public safety and identifies appropriate mitigation measures to reduce, lessen, or eliminate those impacts. For impacts related to flooding hazards, the reader is referred to Section 4.8, Hydrology and Water Quality.

4.3.1 EXISTING SETTING

HAZARDOUS MATERIALS DEFINED

Under Title 22 of the California Code of Regulations (CCR), the term hazardous substance refers to both hazardous materials and hazardous wastes and both are classified according to four properties: toxicity, ignitability, corrosiveness, and reactivity (CCR Title 22, Chapter 11, Article 3). A hazardous material is defined as a substance or combination of substances that may cause or significantly contribute to an increase in serious, irreversible, or incapacitating illness, or may pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed. 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 disposed of properly (CCR Title 22, Chapter 11, Article 2, Section 66261.10). Soil that is excavated from a site containing hazardous materials is a hazardous waste if it exceeds specific CCR Title 22 criteria. Hazardous substances are extensively regulated by multiple agencies, as described below in Section 4.3.2, Regulatory Framework.

Public health is potentially at risk whenever hazardous materials are, or will, be used. It is necessary to differentiate between the "hazard" of these materials and the acceptability of the "risk" they pose to human health and the environment. A hazard is any situation that has the potential to cause damage to human health and the environment. The risk to health and public safety is determined by the probability of exposure, in addition to the inherent toxicity of a material. Factors that can influence health effects when exposed to hazardous materials include: the dose the person is exposed to, the frequency of exposure, the duration of exposure, the exposure pathway (route by which a chemical enters a person's body), and the individual's unique biological susceptibility.

Transportation of Hazardous Materials

The transportation of all hazardous materials within the Redevelopment Project Area is subject to various federal, state, and local regulations. According to the California Highway Patrol, US 50 and State Route 16 (Jackson Road) are the only approved transportation routes in the Rancho Cordova Planning Area for the transportation of explosives. US 50 to Prairie City Road is the only approved transportation route in the Rancho Cordova Planning Area for the transportation of poisonous inhalation hazards. There are no transportation routes within the City of Rancho Cordova that are approved for the transportation of radioactive materials. There is only one active railway approved for the transportation of hazardous materials. The Union Pacific line originates in downtown Sacramento, runs through the entire Project Area, and ends at the Aerojet property near the northeastern portion of the Planning Area. The line runs parallel with the Regional Transit (RT) light rail along Folsom Boulevard and is owned, operated and maintained by Union Pacific.

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Hazardous Material and Waste Sites

The State of California Hazardous Waste and Substances Site List (also known as the "Cortese List") is a planning document used by state, local agencies, and developers to comply with the California Environmental Quality Act (CEQA) requirements in providing information about the location of hazardous materials sites. Government Code Section 65962.5 requires the California Environmental Protection Agency (CAL-EPA) to annually update the Cortese List. The CAL-EPA Department of Toxic Substances Control (DTSC) is responsible for preparing a portion of the information that comprises the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information that is part of the complete list. DTSC's Site Mitigation and Brownfields Reuse Program EnviroStor database provides DTSC's component of Cortese List data by identifying State Response and/or Federal Superfund¹ and backlog sites listed under Health and Safety Code section 25356. In addition, DTSC's Cortese List includes Certified with Operation and Maintenance sites. Following is the DTSC Site Mitigation and Brownfields Reuse Program information for the vicinity of the Project Area, also included in DTSC's component of the Cortese List and available in EnviroStor:

- Aerojet General Corporation, Federal Superfund Site and Active
- ESS Laboratory, State Response and Certified
- Golden West Homes (GPM), State Response and Certified
- Mather Air Force Base, Federal Superfund Site and Active
- Pittsburg Des Moines Steel, State Response
- Purity Oil Sales- Delta Gunite, State Response and Active

Locations of the above active sites are illustrated in **Figure 4.3-1**, State and Federal Hazardous Waste Sites And Areas Of Contamination Within the Project Area. Mather Air Force Base, Aerojet General Corporation facilities, as well as the Rancho Cordova Inactive Test Site facilities are areas of primary concern within the Redevelopment Project Area and thus are discussed in greater detail below. None of the sites listed above are located within the Project Area, however the Aerojet groundwater contamination plume and the Mather groundwater contamination plume affect the Project Area.

In addition to EnviroStor, the CAL-SITES Abandoned Sites Information System (ASPIS) database, compiled by CAL-EPA, can also be used to identify and track potential hazardous waste sites. In addition, the County of Sacramento's Department of Environmental Health maintains lists of hazardous material sites, releases, and accident occurrences. Both sources of information are regularly uploaded to the State's Geographic Environmental Information Management System (GEIMS) so that agencies and the general public can access information regarding a specific site. GEIMS, a data warehouse which tracks regulatory data regarding leaking underground fuel tanks (LUFTs), other contaminant release sites, water quality information, water use information, and infrastructure data, can be used to identify properties that are known to have had contaminant spills. GeoTracker, the interface to GEIMS, uses commercially available software to allow users to access data from GEIMS over the Internet. According to the GEIMS database, there are approximately 30 leaking underground fuel tanks (LUFTs) and SLIC (Spills, Leaks, Investigations, and Clean-Up) sites within the Redevelopment Project Area. **Figure 4.3-2** illustrates the locations of these contaminant sources.

¹ State Response Sites and the Federal Superfund Program establish priorities for the location, investigation, and clean up the worst toxic contamination sites statewide and nationwide.

Groundwater Contamination Plumes

As shown in **Figure 4.3-1**, the Mather groundwater contamination plume and the Aerojet contamination plume affect portions of the Project Area. These are discussed in greater detail below and in Section 4.8, Hydrology and Water Quality.

Mather Air Force Base

Mather Air Force Base (AFB), comprised of approximately 5,845 acres south of the Redevelopment Project Area, was established in 1918. Starting in 1941, its primary mission was to train navigators to operate advanced navigation, bombing, missile and electronic warfare systems. The Base's industrial activities included vehicle, aircraft and weapons maintenance. Mather Air Force Base was decommissioned by the federal government and officially closed in September 1993. At the time of decommission, the runways and associated facilities became Mather Airport.

Previous activities at Mather AFB have resulted in the contamination of soil and groundwater with volatile organic compounds (VOCs), including trichloroethylene (TCE) and tetrachloroethylene (PCE), and hydrocarbons associated with fuels. This groundwater contamination has formed a plume, which affects portions of the Project Area as shown in **Figure 4.3-1**.

The U.S. Air Force and community water suppliers have closed contaminated wells, installed treatment systems, and currently monitor active wells regularly. Regular monitoring includes collecting quarterly samples from on-base supply systems, off-base community supply systems, and private wells to the west and south and analyzing the samples for VOCs and/or perchlorate. These measures are being used to prevent current and future exposures to contaminants that may pose potential public health hazards. In order to prevent current and future exposures to contaminants at levels of health concern in surface waters and sediment, the U.S. Air Force is completing remedial actions with oversight by the U.S. EPA and CAL-EPA.

Aerojet General Corporation

The Aerojet General Corporation site covers approximately 5,900 acres northeast of the Project Area (see **Figure 4.3-1**). The northeastern edge of the Aerojet site is about 1/2 mile from the American River. Since 1953, Aerojet and its subsidiaries have manufactured liquid and solid propellant rocket engines for military and commercial applications and have formulated a number of chemicals, including: rocket propellant agents, agricultural, pharmaceutical, and other industrial chemicals. In addition, the Cordova Chemical Company operated chemical manufacturing facilities on the Aerojet complex from 1974 to 1979. Both companies disposed of unknown quantities of hazardous waste chemicals, including trichloroethylene (TCE) and other chemicals associated with rocket propellants, as well as various chemical processing wastes. Some wastes were disposed of in surface impoundments, landfills, deep injection wells, leachate fields, and some were disposed of by open burning. Underlying the site are extensive 40 to 100 foot-deep dredge tailings, a remnant of past gold mining operations.

Environmental investigations at the site began in 1979. There is soil contamination, both onsite and in areas east of the site. Groundwater contamination has been defined in a number of discrete plumes that move out radially to the north, west, and south of the site. The site is fenced and access is controlled. The major contaminants found both onsite and offsite are solvents such as trichloroethylene (TCE) and chloroform and rocket fuel by-products such as N-Nitrosodimethylamine (NDMA) and perchlorate. Contaminants at the site are present in a wide

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range of concentrations. Aerojet installed and is operating six groundwater extraction and treatment (GET) systems at the site boundaries to prevent further offsite migration. In addition, Aerojet has conducted a number of removal actions for onsite soils, liquids, and sludges. In 1989, Aerojet, EPA, the Regional Water Quality Control Board (RWQCB) and DTSC signed a Partial Consent Decree to complete a comprehensive Remedial Investigation/ Feasibility Study (RI/FS), maintain the current GET systems, and take any necessary removal actions. In July of 1998, the Partial Consent Decree was modified to include monitoring public water supplies for the chemical perchlorate, replacing water supplies impacted by perchlorate, annual updates to the monitoring plan for public water supplies, and reducing the discharge limit for N-nitrosodimethylamine at currently operating groundwater extraction and treatment facilities.

Asbestos Containing Building Materials

On March 31, 1971, the EPA identified asbestos as a hazardous pollutant. Asbestos is a strong and incombustible fiber widely used in the past for fireproofing and insulation. The small, buoyant fibers are easily inhaled or swallowed, causing a number of serious diseases including: asbestosis, cancer, and mesothelioma (a cancer specific to asbestos exposure). In order to implement U.S. EPA's National Emission Standard for Hazardous Air Pollutants for Asbestos and to limit the emission of asbestos to the atmosphere, the Sacramento Metropolitan Air Quality Management District (SMAQMD) provides regulations that require the evaluation of potential asbestos-containing materials prior to the demolition, removal, or renovation of certain structures (SMAQMD Rule 902). More than likely, there are several structures within the Redevelopment Project Area that were constructed prior to the EPA ban and therefore may contain asbestos and asbestos containing building materials. However, according to EPA's National Emission Standard for Hazardous Air Pollutants for Asbestos and SMAQD Rule 902, individual asbestos abatement surveys and appropriate removal and disposal are required for renovation projects.

Lead Based Materials

Lead is a highly toxic metal that was used for many years in products found in and around homes, including paint and fuels. Although lead-based paints were phased out of production in the early 1970s, exposure to lead from older vintage paint is possible, when the paint is in poor condition, or during paint removal. Workers are exposed to airborne lead during construction, demolition, renovation, and site preparation activities. Children under the age of six are most at risk, the primary sources of lead exposure for most children being deteriorating lead-based paint, lead-contaminated dust, and residential soils containing lead. Lead has been linked to a wide range of health effects, from behavioral problems and learning disabilities, to seizures and death. The proper handling and disposal of lead based materials can significantly reduce potential safety and health related impacts. The presence of lead based paint and other lead containing building materials in the Redevelopment Project Area is considered high, given the age and condition of the most of the buildings and structures.

Aerially deposited lead, primarily due to vehicle and aircraft emissions, may also be present along major roadways, unpaved areas, and formerly unpaved areas. The primary concern for aerially deposited lead within the Redevelopment Project Area is along US 50, where there is substantial amounts of traffic, which is main cause of air-borne deposited lead.

Radon and Naturally Asbestos Potential

Radon isotope-222 is a colorless, odorless, tasteless radioactive gas that is a natural decay product of uranium. Uranium and radon are present in varying amounts in rocks and soil, and radon is present in background concentrations in the atmosphere. Current evidence indicates

that increased lung cancer risk is directly related to radon-decay products. Radon potential of rocks and soils and indoor radon exposure levels in the United States are currently areas of intense research by governmental regulators as well as the geoscience and medical communities. At this time, the EPA has recommended an "action" level for indoor radon concentrations at or exceeding 4 pico-curies per liter of air (pCi/l). The EPA has extrapolated a one percent to three percent lung cancer mortality rate due to a lifetime exposure at 4 pCi/l; that is, one to three persons per 100 exposed to this concentration for life will die of lung cancer induced by radon.

The California Statewide Radon Survey Interim Results, based on the EPA/State Department of Health Services State Radon Survey, predicts that only 3.6 percent of homes in Sacramento County would exceed the EPA's recommended level of 4 pCi/l. Additionally, California ranks as the third lowest for percentage of homes exceeding 4 pCi/l of the 33 states participating in the study. Specific indoor radon information is not available, as the presence of radon can only be obtained through a sampling and testing program for existing or future buildings. Given the soil composition and urbanized character of the Redevelopment Project Area, the potential for radon concentrations exceeding 4 pCi/l is estimated to be very low.

Naturally occurring asbestos is mostly a concern in the foothill communities (i.e., Folsom, Newcastle, etc.). Given the soil composition of the Redevelopment Project Area, naturally occurring asbestos is not anticipated to be present.

Electrical Facilities

Pacific Gas and Electric Company (PG&E) and the Sacramento Metropolitan Utility District (SMUD) own and operate the existing electrical facilities in the City of Rancho Cordova. However, SMUD is the exclusive electrical service provider to the City of Rancho Cordova and will provide all electrical services to the entire Redevelopment Project Area. There are several 12-kilovolt (kV) and 69 kV transmission lines throughout the Project Area. The 69-kV transmission lines are typically overhead lines that transmit the electricity to the smaller 12-kV, which are generally placed underground and used to deliver the electricity to individual developments, commercial and industrial customers. The potential safety hazards to future Project Area residents associated with magnetic fields from the existing electrical power lines are not quantifiable; however, based on available research information, is not considered a significant impact.

PCB Transformers

In 1976, the United States Congress enacted the Toxic Substances Control Act (TSCA), which gave the EPA the ability to track all industrial chemicals imported into and used in the U.S. The EPA repeatedly screens these chemicals and can require reporting or testing of chemicals that may pose an environmental or human health hazard. The EPA can ban the manufacture and import of those chemicals that pose an unreasonable risk. The TSCA directed the EPA to ban the manufacture of polychlorinated biphenyls (PCBs) and regulated their use and disposal. The EPA accomplished this by the issuance of regulation in 1978. Primary sources of PCBs include fluorescent light ballast and electrical transformers. The Environmental Protection Agency (EPA) maintains the PCB Activity Database (PADS) that identifies generators, transporters, commercial storers, and brokers and disposers of PCBs. Electrical facilities developed after 1979 are unlikely to be associated with PCB-containing transformers. The actual levels of PCBs in specific equipment can only be confirmed by sampling and analysis of the mineral oil coolant within the actual pieces of equipment under consideration. Given the condition and urbanized character of the Redevelopment Area, it may have PCB containing transformers; however, SMUD is

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responsible for all transformers within its service area boundaries and is subject to EPA regulations regarding PCB transformers. The Sacramento Metropolitan Utility District is required to notify EPA of any activities or incidences involving PCBs. In addition, SMUD routinely identifies and replaces all leaking transformers and transformers containing PCBs within its service area boundaries.

Buried Natural Gas Pipeline

The Pacific Gas and Electric Company (PG&E) provides natural gas service to the City of Rancho Cordova and will provide service to the entire Project Area. PG&E owns and operates an 8-inch feeder line natural gas main that is located in the frontage of Sunrise Boulevard and runs throughout the Project Area. This feeder main is currently operating at 60 pounds per square inch (psi); however, this line is intended to be a future high pressure main to serve the projected growth in the southeastern portion of the City. There have been no reported leaks, ruptures, or other problems associated with the existing feeder line and this section of buried pipeline has not been identified on any of the regulatory agency database searches as a source of contamination, hazardous materials release, or accident site. Existing system modifications, improvements, and upgrades will be required to serve the demand associated with future Redevelopment activities.

Airport Operations Hazards

Airport-related hazards are generally associated with aircraft accidents, particularly during takeoffs and landings. Airport operation hazards include: incompatible land uses, power transmission lines, wildlife hazards (e.g., bird strikes), and tall structures that penetrate the imaginary surfaces surrounding an airport. The entire Redevelopment Project Area is located within the boundaries of the Mather Airport Comprehensive Land Use Plan (CLUP) and the Mather Airport Policy Area (MAPA). A CLUP establishes the planning area boundaries of the airport and provides the land use guidelines with which compatible uses are determined. A further discussion of the Mather CLUP is provided below.

Natural Hazards

Fire Hazards

The major fire hazard in the vicinity of the Redevelopment Project Area is the American River Parkway, which is home to a wide variety of trees, shrubs, and native grasses. These vegetation types provide a substantial source of fuel and a potential for wildland fires. Reader is referred to Section 4.12 Public Services for a further discussion regarding fire related hazards and fire service.

4.3.2 REGULATORY FRAMEWORK

Many agencies regulate hazardous substances. The following discussion contains a summary review of regulatory controls pertaining to hazardous substances, including federal, State and local laws and ordinances. **Table 4.3-1** lists federal, State and local regulatory agencies that oversee hazardous materials handling and hazardous waste management, and the statutes and regulations that they administer.

**TABLE 4.3-1
REGULATORY AGENCIES FOR HAZARDOUS MATERIALS**

Federal Agencies	
Regulatory Agency	Authority
Department of Transportation (DOT)	Hazardous Materials Transportation Act - Code of Federal Regulations (CFR) 49
Environmental Protection Agency (EPA)	Federal Water Pollution Control Act Clean Air Act Resource Conservation and Recovery Act (RCRA) Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Superfund Amendments and Reauthorization Act, (SARA) Federal Insecticide, Fungicide and Rodenticide Act Toxic Substances Control Act (TSCA)
National Institute of Health	Guidelines for Carcinogens and Biohazards
Occupational Safety and Health Administration (OSHA)	Occupational Safety and Health Act and CFR 29
State Agencies	
Regulatory Agency	Authority
Department of Toxic Substances Control (DTSC)	California Code of Regulations
Department of Industrial Relations (CAL-OSHA)	California Occupational Safety and Health Act, CCR Title 8
State Water Resources Control Board and Regional Water Quality Control Board	Porter-Cologne Water Quality Act Underground Storage Tank Law
Health and Welfare Agency	Safe Drinking Water and Toxic Enforcement Act
Air Resources Board and Air Pollution Control District	Air Resources Act
Office of Emergency Services	Hazardous Materials Release Response Plans/Inventory Law
Department of Fish and Game	Fish and Game Code
Department of Food and Agriculture	Food and Agriculture Code
State Fire Marshall	Uniform Fire Code, CR Title 19
County Agencies	
Regulatory Agency	Authority
Sacramento County Environmental Management Department	CCR Title 22 Hazardous Waste Control Law Hazardous Materials Release Response Plans/Inventory Law Acutely Hazardous Materials Law Underground Storage Tanks Law

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FEDERAL

Hazardous Materials Transportation Act

The objective of the Hazardous Materials Transportation Act of 1975 (HMTA) according to the policy stated by Congress is "...to improve the regulatory and enforcement authority of the Secretary of Transportation to protect the Nation adequately against risks to life and property which are inherent in the transportation of hazardous materials in commerce." The HMTA empowered the Secretary of Transportation to designate as hazardous material any "particular quantity or form" of a material that "may pose an unreasonable risk to health and safety or property." Regulations apply to "...any person who transports, or causes to be transported or shipped, a hazardous material; or who manufactures, fabricates, marks, maintains, reconditions, repairs, or tests a package or container which is represented, marked, certified, or sold by such person for use in the transportation and commerce of certain hazardous materials."

Enforcement of the HMTA is shared by various federal administrations, under delegations from the Secretary of the Department of Transportation, including the Federal Highway Administration, which enforces all regulations pertaining to motor carriers. In 1990, Congress enacted the Hazardous Materials Transportation Uniform Safety Act (HMTUSA) to clarify the maze of conflicting state, local, and federal regulations. Like the Hazardous Materials Transportation Act, the HMTUSA requires the Secretary of Transportation to promulgate regulations for the safe transport of hazardous material in intrastate, interstate, and foreign commerce. The Secretary also retains authority to designate materials as hazardous when they pose unreasonable risks to health, safety, or property. The statute includes provisions to encourage uniformity among different state and local highway routing regulations, to develop criteria for the issuance of federal permits to motor carriers of hazardous materials, and to regulate the transport of radioactive materials.

Federal Aviation Administration

Federal Aviation Regulations (FAR), Part 77, defines a series of imaginary surfaces surrounding all public use airports. Any proposed object or structure that would penetrate any of these imaginary surfaces, as they apply to the affected airport facilities, is considered by the Federal Aviation Administration (FAA) to be an obstruction to air navigation. An obstruction to air navigation may not be a hazard to air navigation, however, the FAA presumes it to be a hazard and treats it as such until an FAA aeronautical study has determined that it does not have a substantial adverse effect on the safe use of the navigable airspace by aircraft.

The imaginary surfaces the FAA uses to determine whether or not a structure or an object would be an obstruction to air navigation includes: the primary surface, approach surface, horizontal surface, conical surface, and transitional surfaces. The Mather Airport CLUP, discussed in more detail below, determines the compatibility of surrounding land uses based upon noise levels associated with the airport operations and exposure of persons to crash hazards associated with aircraft and height restrictions. Height restrictions, as imposed by FAR Part 77, within the Redevelopment Project Area are shown on **Figure 4.3-3**.

STATE

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

As of August 1, 1992, the California Department of Toxic Substances Control (DTSC) was authorized to implement the State's hazardous waste management program for the EPA;

although, the federal EPA continues to regulate hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). Under direction from the US EPA, the Cal-EPA and the California State Water Resources Control Board are the State agencies with primary authority of establishing rules governing the use of hazardous materials and the management of hazardous waste. Within Cal-EPA, the Department of Toxic Substances Control has primary regulatory responsibility, with the delegation of enforcement to local jurisdictions, for the management of hazardous materials and the generation, transport and disposal of hazardous waste under the authority of the Hazardous Waste Control Law (HWCL).

California Vehicle Code (CVC) Sections 31301-31309 regulate the transportation of hazardous materials on California roadways. CVC Sections 31600-31620 regulate the transportation of explosives on California roadways, and CVC Sections 32100-32109 regulate the transportation of inhalation hazards on California roadways.

Inhalation hazards, such as poisonous gases, are subject to additional safeguards. These materials are highly toxic, spread rapidly, and require rapid and widespread evacuation if there is loss of containment or a fire. The Highway Patrol designates through routes to be used for the transportation of inhalation hazards. The Highway Patrol may also designate separate through routes for the transportation of inhalation hazards composed of any chemical rocket propellant (California Vehicle Code, Section 32100 and Section 32102(b)).

The California Division of Occupational Safety and Health (Cal-OSHA) protects workers and the public from safety hazards through its Cal/OSHA, elevator, amusement ride, aerial tramway, ski lift and pressure vessel programs, and provides consultative assistance to employers. The Cal/OSHA Program is responsible for enforcing California laws and regulations pertaining to workplace safety and health and for providing assistance to employers and workers about workplace safety and health issues. The Cal/OSHA Enforcement Unit conducts inspections of California workplaces based on worker complaints, accident reports and high hazard industries. There are 22 Cal/OSHA Enforcement Unit district offices located throughout the state of California. Specialized enforcement units such as the Mining and Tunneling Unit and the High Hazard Enforcement Unit augment the efforts of district offices in protecting California workers from workplace hazards in high hazard industries. Other specialized units such as the Crane Certifier Accreditation Unit, the Asbestos Contractors' Registration Unit, the Asbestos Consultant and Site Surveillance Technician Unit, and the Asbestos Trainers Approval Unit are responsible for enforcing regulations pertaining to crane safety and prevention of asbestos exposure. The Cal/OSHA Consultation Service provides assistance to employers and workers about workplace safety and health issues through on-site assistance, high hazard consultation and special emphasis programs, and develops educational materials on workplace safety and health topics.

LOCAL

Sacramento County Area Plan

The County of Sacramento, Office of Emergency Services (OES) implements the State's Right-to-Know Ordinance that gives the OES the authority to inventory hazardous materials used by businesses. The County is also in the process of collecting information regarding existing and proposed locations of hazardous material disposal, storage, handling, and transportation facilities. Additionally, the Sacramento County Environmental Management Department (EMD) is responsible for enforcing the state regulations on both the city and county level, governing hazardous waste generators, hazardous waste storage, underground storage tanks (USTs) and

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environmental health, including inspections and enforcement. EMD also regulates the use, storage, and disposal of hazardous materials in the County and abandonment of wells and septic systems in the County by issuing permits, monitoring regulatory compliance, investigating complaints, and other activities. EMD reviews technical aspects of hazardous waste site cleanups, and oversees remediation of certain contaminated sites resulting from leaking underground storage tanks. EMD is also responsible for providing technical assistance to public and private entities that seek to minimize the generation of hazardous waste.

The Sacramento County Environmental Management Department established the Sacramento County Area Plan (SCAP) as a guideline for responding to hazardous material related accidents or occurrences. The purpose of the SCAP is “to delineate responsibilities and actions by various agencies in Sacramento County required to meet the obligation to protect the health and welfare of the populace, natural resources (environment), and the public and private properties involving hazardous materials.” The SCAP is used for making initial decisions at a hazardous materials incident. The SCAP uses Level I, Level II and Level III classifications for hazardous material incidents, which are determined by the following planning basis:

- Level of technical expertise required to abate the incident;
- Extent of Municipal, County, and State Government involved;
- Extent of evacuation of civilians; and
- Extent of injuries and/or deaths.

Sacramento County Multi-Hazard Disaster Plan

The Sacramento County Multi-Hazard Disaster Plan (SCMDP) was established to address a planned response to extraordinary emergency situations associated with natural disasters and technological incidents such as earthquakes or massive infrastructure failures. The SCMDP focuses on operational concepts related to large-scale disasters, which can pose major threats to life and property requiring unusual emergency responses. The SCMDP was designed to include Sacramento County as part of the California Standardized Emergency Management System (SEMS), which assigns responsibilities to support implementation of the SCMDP and to ensure successful response during a major disaster.

Mather Airport Comprehensive Land Use Policy (CLUP)/ Airport Land Use Compatibility Plan (ALUP)

The Sacramento County Board of Supervisors adopted the updated Mather Airport Comprehensive Land Use Plan (CLUP) and the Mather Airport Policy Area (MAPA) into the County's General Plan. The CLUP establishes the planning area boundaries of the airport and provides the land use guidelines on which compatible uses are determined. The MAPA policies place additional development conditions on new residential uses within the geographic boundaries of the MAPA. The MAPA policies are more stringent than the CLUP policies and provide additional protection to the airport and the surrounding land uses. The CLUP is being updated and renamed the Mather Airport Land Use Compatibility Plan (ALUP). The Mather Airport Master Plan is being updated concurrently with the CLUP. Given that the entire Project Area is located within the existing and proposed boundaries of the Mather Airport Comprehensive Land Use Plan and the Mather Airport Policy Area, implementation of the Redevelopment Plan must comply with federal, state, and local regulations so as not to conflict with operations of the airport facilities. CLUP compliance would be further determined on a project-by-project basis.

4.3.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Based on criteria derived from Appendix G in the CEQA Guidelines, the proposed project would result in a significant impact to the environment or to human health and safety if the project would:

- 1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- 2) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- 3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- 4) Be located on a site which is included on a list of hazardous materials sites compiled by Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.
- 5) For a project 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, result in a safety hazard for people residing or working in the project area.
- 6) For a project in the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.
- 7) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

METHODOLOGY

This section analyzes the impacts associated with the proposed project and the risk of upset due to potential hazardous substances and/or waste contamination that may exist within the Redevelopment Project Area. This evaluation of hazards and hazardous material impacts associated with implementation of the proposed project is based on database research, field reconnaissance of the surroundings, and consultation with relevant agencies.

PROJECT IMPACTS AND MITIGATION MEASURES

Transportation of Hazardous Materials

Impact 4.3.1 Implementation of the Redevelopment Plan would include the routine transportation of hazardous materials on Project Area roadways. This is considered a **less than significant** impact.

As described above, it is illegal to transport explosives or inhalation hazards on any public highway not designated for that purpose, unless the use of the highway is required to permit delivery, or the loading of, such materials (California Vehicle Code, Section 31602(b) and Section 32104(a)). According to the California Highway Patrol, US 50 is the only approved

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transportation route in the City of Rancho Cordova and Redevelopment Project Area approved for the transportation of explosives. When transporting explosives through or into a city for which a route has not been designated by the Highway Patrol, drivers must follow routes as may be prescribed or established by local authorities (California Vehicle Code, Section 31614(a)). The transportation of explosives in quantities of 1,000 pounds or less, or other than on a public highway, is subject to the California Health and Safety Code (California Vehicle Code, Section 31601(a)).

The California Highway Patrol also designates through routes to be used for the transportation of inhalation hazards and may designate separate through routes for the transportation of inhalation hazards composed of any chemical rocket propellant (California Vehicle Code, Section 32100 and Section 32102(b)). US 50 up to Prairie City Road is the only approved transportation route in the Project Area approved for the transportation of poisonous inhalation hazards. These materials are highly toxic, spread rapidly, and require rapid and widespread evacuation if there is loss of containment or a fire. There are no approved transportation routes within the Project Area for the transportation of radioactive materials. Highway 80, located over 5 miles northwest of the Project Area, has been approved for the transportation of radioactive materials, as well as explosives and poisonous inhalation hazards (personal communication with CHP, January 2006).

The residential and commercial land uses within the Redevelopment Project Area are not associated with large amounts of hazardous materials or the use of explosives, poisonous inhalation hazards, or radioactive materials. Some of the commercial uses would involve the routine transport of hazardous materials, and both existing and future industrial uses will require the use and transport of hazardous materials. As previously discussed, the transportation of hazardous materials is highly regulated. Compliance with the Hazardous Materials Transportation Act - Code of Federal Regulations (CFR) 49, ensures safe transport of hazardous materials. This is a **less than significant** impact.

Mitigation Measures

None required.

Release of Hazardous Materials

Impact 4.3.2 The Redevelopment Project Area would include land uses having the potential to result in the release of hazardous materials. This is considered a **potentially significant** impact.

Federal, state, and local laws are in place to minimize accidental release of hazardous materials. If these laws are not complied with, there is potential hazard to the public and the environment through the release of hazardous materials. The Redevelopment Project Area includes residential and commercial uses, which generally use limited amounts of household and commercial cleaners, solvents and other hazardous materials. The Redevelopment Project Area includes existing industrial uses and potential future industrial uses which would involve the storage and more frequent use of hazardous materials. If not properly stored and handled, all the proposed land uses have the potential for the accidental release of hazardous materials adversely affecting public safety and the environment, resulting in potentially significant impacts.

Mitigation Measures

The following mitigation measures will be adopted by the City Council in connection with the adoption of the Redevelopment Plan as measures that will apply to all development in the Project Area until the General Plan is adopted:

MM 4.3.2a In considering the potential impact of hazardous facilities on the public and/or adjacent or nearby properties in the Project Area from projects under the Redevelopment Plan, the Agency shall consider the hazards posed by reasonably foreseeable events in any project-specific environmental review. Evaluation of such hazards shall address the potential for events at facilities to create hazardous physical effects at offsite locations that could result in death, significant injury, or significant property damage. The potential hazardous physical effects of an event need not be considered if the occurrence of an event is not reasonably foreseeable as defined below. Absent substantial evidence to the contrary, a “hazardous physical effect” from an event shall be a level of exposure to a hazardous physical effect in excess of the levels identified below.

The Agency considers an event to be “reasonably foreseeable” when the probability of the event occurring is greater than one in one million (1/1,000,000) per year.

MM 4.3.2b The Agency shall ensure that subsequent projects under the Redevelopment Plan that include on-site storage of hazardous materials and waste comply with all applicable local, state and federal regulations, including those regulating the use, storage, handling and disposal of hazardous materials.

MM 4.3.2c The Agency shall require secondary containment and periodic examination for all storage of hazardous and toxic materials, consistent with the requirements of state or federal law, for subsequent projects under the Redevelopment Plan.

MM 4.3.2d The Agency shall require written confirmation from applicable local, regional, state, and federal agencies that known contaminated sites have been deemed remediated to a level appropriate for land uses proposed prior to the Agency approving site development or provide an approved remediation plan that demonstrates how contamination will be remediated prior to site occupancy. This documentation will specify the extent of development allowed on the remediated site as well as any special conditions and/or restrictions on future land uses.

Implementation of the above mitigation measures would reduce the Redevelopment Plan's environmental impacts associated with the accidental release of hazardous materials to **less than significant**.

Hazardous Materials Emissions Near Schools

Impact 4.3.3 The existing and proposed land uses in the Redevelopment Project Area have the potential to emit hazardous materials near existing or proposed school sites and expose citizens to unsafe conditions. This is considered a **potentially significant** impact.

4.3 HAZARDS AND HUMAN HEALTH

There are no new school sites proposed in association with the Redevelopment Plan; however, the Cordova Lane Elementary School, Kinney High and Walnutwood High (both continuation high schools) and the Adult Education Center at 10850 Gadsten Way, are all within ¼-mile of the Redevelopment Project Area. As previously indicated, the land uses within the Redevelopment Project Area include residential, commercial, and industrial land uses. The construction of future projects within of the Redevelopment Project Area would involve the use of heavy equipment and other hazardous materials (i.e., solvents, fuels, etc.) for equipment maintenance, site preparation and other construction related activities. The operational phases of the residential and commercial component of the Redevelopment Plan could involve the limited use and storage of hazardous materials. These land uses are not typically associated with hazardous material emissions or releases, unless improperly handled or managed.

There are no industrial uses proposed within ¼-mile of an existing or proposed school facility, having the potential adversely affect these facilities. As indicated in Impact 4.3.1 and 4.3.2, if not properly stored, handled, transported and disposed of in accordance with all federal, State, and local standards, the land uses within the Redevelopment Project Area have the potential to emit hazardous materials within ¼-mile of a school site. However, compliance with DOT and other regulations would ensure that the transportation of hazardous materials near a school site would not adversely affect the identified facilities.

Mitigation Measures

Implementation of mitigation measures **MM 4.3.2a through d** would reduce the Redevelopment Plan's environmental impacts associated with the accidental release of hazardous materials near a school site or facility to **less than significant**.

Contamination Due to Underground Storage Tanks

Impact 4.3.4 Underground storage tanks have the potential to contaminate soils and/or groundwater and may be discovered during site preparation and construction activities. This is considered a **potentially significant** impact.

The majority of the Redevelopment Project Area is urbanized and built out; however, there are portions of the Project Area where the site conditions are unknown and there is the potential for discovering USTs during future construction and site preparation activities. If UST(s) are discovered during any phase of a project, the County Environmental Management Department (EMD) requires removal prior to continuance of any activity. As previously discussed, based on the GEIMS database search, there are existing underground storage tank sites within the Redevelopment Project Area. The potential for discovering additional unknown underground storage tanks (USTs) is likely, due to the urbanized character of the Project Area. An Environmental Site Assessment for projects would determine site-specific information, including past hazardous materials involvement. As future projects are undertaken in the Redevelopment Project Area Environmental Site Assessments must be done on a case-by-case basis on project sites where USTs are known to exist.

If previously unidentified USTs are discovered during redevelopment activities, the EMD requires removal prior to any subsequent development activities. If subsurface contamination occurred as result of tank leakage or overfilling, the contamination would require assessment and remediation in compliance with Sacramento County EMD regulations. Compliance with EMD regulations regarding removal of USTs and remediation of subsurface contamination would ensure that impacts from previously unknown USTs are less than significant.

Mitigation Measures

Implementation of Mitigation Measure **MM 4.3.2d** would mitigate impacts from known or suspected UST sites to **less than significant**.

Airport Operations

Impact 4.3.5 Implementation of the proposed Redevelopment Plan could result in safety hazards associated with airport operations in areas proposed for redevelopment. This is considered a **potentially significant** impact.

As shown in **Figure 4.3-3**, portions of the Redevelopment Project Area have FAR Part 77 height restrictions of 150 feet. The proposed project, particularly the Office Mixed Downtown designation, has the potential to place structures or objects in a height restriction area or safety zone, which may be considered an air navigation hazard according to FAA FAR Part 77, or may result in the placement of structures or facilities that are inconsistent with the applicable CLUP.

However, as required by FAA regulations, the land uses and building heights proposed in the Redevelopment Project Area (i.e., Office Mixed Downtown land use designation) must be consistent with the FAR Part 77 height restrictions and the safety zones established in the Mather Airport CLUP, which would ensure that the project's impacts on airport operations are less than significant.

The following mitigation measures will be adopted by the City Council in connection with the adoption of the Redevelopment Plan as measures that will apply to all development in the Project Area until the General Plan is adopted:

Mitigation Measures

MM 4.3.5 The Agency shall require that subsequent projects under the Redevelopment Plan comply with the height restrictions identified in FAR Part 77 and the safety requirements of the Mather CLUP. The Caltrans Division of Aeronautics shall verify compliance with the height restrictions.

Implementation of the above mitigation measure would reduce the Redevelopment Plan's environmental impacts associated with airport operations to **less than significant**.

4.3.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

SETTING

The cumulative setting for hazards and human health risks includes the City of Rancho Cordova and the properties directly adjacent to and in the vicinity of the Redevelopment Project Area. Hazardous material, human health and safety impacts are generally site-specific and not cumulative by nature. The potential impacts due to cumulative hazardous materials from increased development include, but are not limited to: transportation, air quality, hydrology and water quality, and biological resources. The cumulative impacts associated with these affected resources are analyzed in the applicable technical sections of this EIR.

4.3 HAZARDS AND HUMAN HEALTH

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Hazards and Health Risks

Impact 4.3.6 Implementation of the Redevelopment Plan could expose persons to hazards during construction activities and throughout the life of the Plan. This is considered a **less than cumulatively considerable** impact.

The cumulative effects from land uses proposed in association with the Redevelopment Plan could create a risk to public health from exposure to natural hazards (e.g. flooding and fire) and exposure to hazardous materials (groundwater contamination, PCB containing transformers, USTs/ASTs, etc.). As previously discussed, the proposed land uses (commercial, industrial, and residential properties) will use limited hazardous materials during construction and operational activities. All new and existing projects are required to comply with all federal, state and local regulations regarding the handling, transportation, and disposal of hazardous materials.

Mitigation Measures

Implementation of mitigation measures **MM 4.3.2a** through **d** and **MM 4.3.5** would address site-specific hazard issues in the Project Area and would result in the Redevelopment Plan having a **less than cumulatively considerable** impact to cumulative hazard impacts.

REFERENCES

California Code of Regulations, Title 13, Chapter 6, Articles 1 and 2,
<http://government.westlaw.com/linkedslice/default.asp?SP=CCR-1000>

California Department of Education School Site Selection,
<http://www.cde.ca.gov/ls/fa/sf/schoolsiteguide.asp>

California Department of Toxic Substances Control, <http://www.dtsc.ca.gov/>

County of Sacramento. CEQA Findings of Fact and Statement of Overriding Considerations of the Board of Supervisors of Sacramento County for the Sunrise Douglas Community Plan/Sunridge Specific Plan. July 17, 2002.

County of Sacramento Department of Environmental Review and Assessment. Sunrise Douglas Community Plan/Sunridge Specific Plan Final Environmental Impact Report. November 2001.

County of Sacramento Waste Management and Recycling,
<http://www.sacgreenteam.com/projects/kiefergastoenergy.htm>

NDMA informational website, <http://www.komex.com/solutions/NDMA.stm>

Personal communication with Hazardous Materials Sergeant Steve Snelling, California Highway Patrol. January 5 2006.

Personal communication with Susan Erikson, Sacramento County Environmental Management Department. January 2006.

Rancho Cordova General Plan, <http://gp.cityofranhocordova.org/>

Rancho Cordova Zoning Code,

http://www.cityofranhocordova.org/documents/planning/zoning_code/

Sacramento County General Plan, <http://www.saccounty.net/general-plan/gp-home.html>

Sacramento County Department of Water Resources Local Floodplain Management Plan 2001,

<http://www.msa.saccounty.net/waterresources/drainage/docs/LocalFPMgmtPlan.pdf>

Sacramento Metropolitan Air Quality Management District Rules and Regulations,

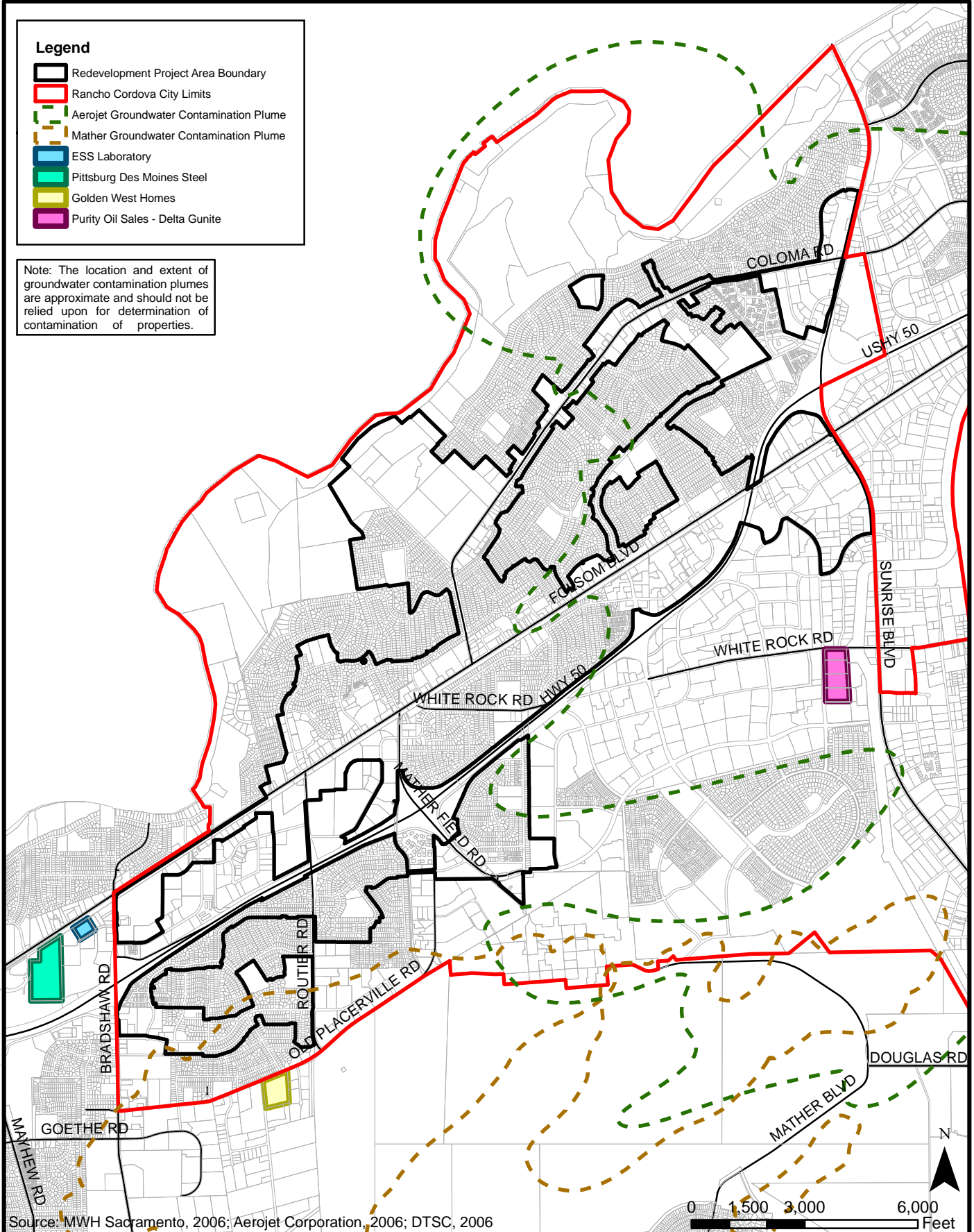
<http://www.airquality.org/rules/rule902.pdf>

U.S. Environmental Protection Agency Indoor Air Quality and Radon,

<http://www.epa.gov/radon/rnlinks.html> and <http://www.epa.gov/radon/radonqa1.html>.

4.3 HAZARDS AND HUMAN HEALTH

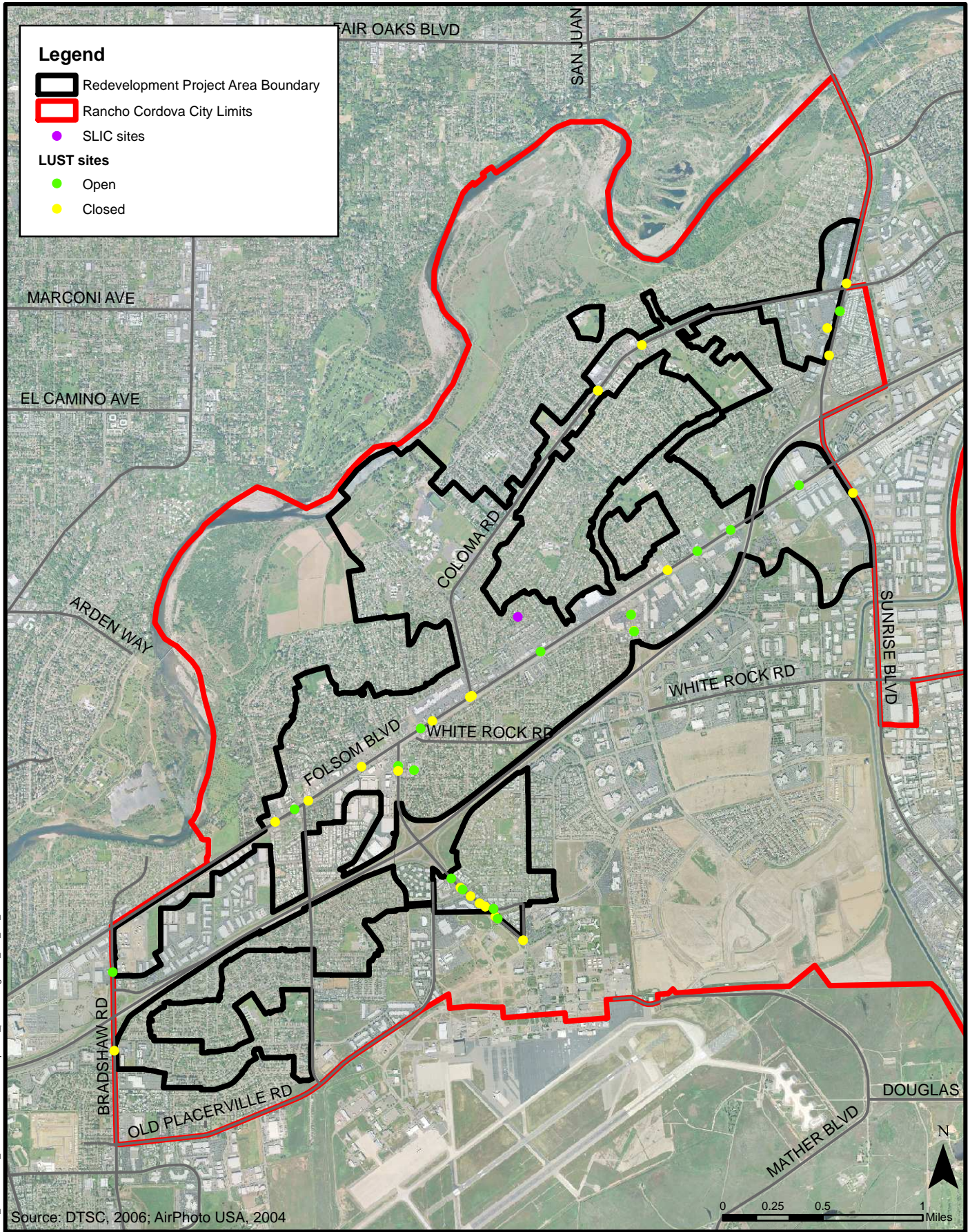
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Figure 4.3-1
State and Federal Hazardous Waste Sites
and Areas of Contamination
Within the Redevelopment Project Area Vicinity

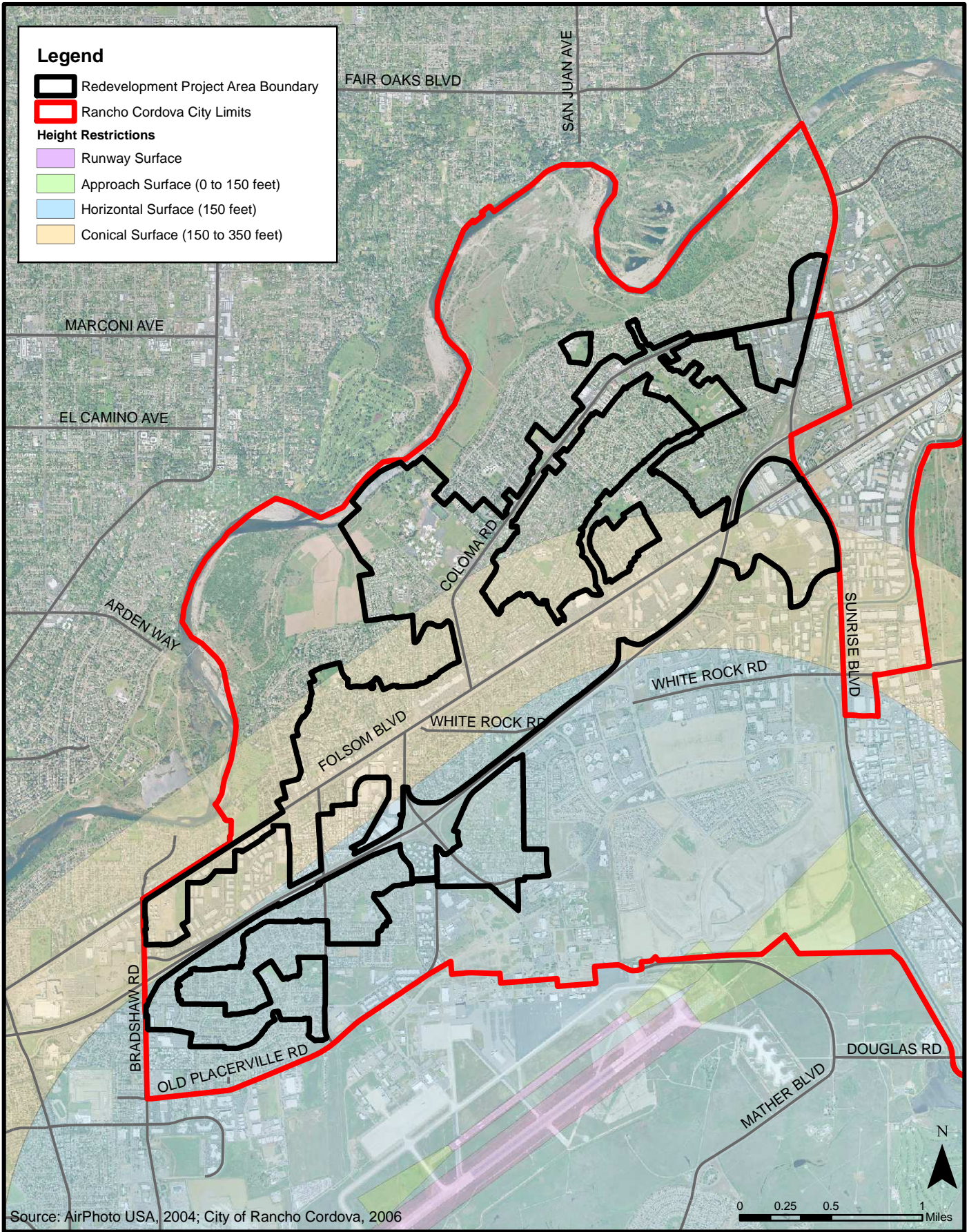


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City of Rancho Cordova
Planning Department

Figure 4.3-2
LUST and SLIC Sites
Within the Redevelopment Project Area



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Source: AirPhoto USA, 2004; City of Rancho Cordova, 2006



City of Rancho Cordova
Planning Department

Figure 4.3-3
FAR Part 77 (Height Restrictions)
Over the Redevelopment Project Area