3.8 HAZARDS AND HAZARDOUS MATERIALS

3.8.1 AFFECTED ENVIRONMENT

For purposes of this section, the term "hazardous materials" refers to both hazardous substances and hazardous wastes. A "hazardous material" is defined as "a substance or material that…is capable of posing an unreasonable risk to health, safety, and property when transported in commerce" (49 Code of Federal Regulations [CFR] Section 171.8). California Health and Safety Code Section 25501 defines a hazardous material as follows:

> "Hazardous material" means any material that, because of its quantity, concentration, or physical, or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

"Hazardous wastes" are defined in California Health and Safety Code Section 25141(b) as wastes that:

> because of their quantity, concentration, or physical, chemical, or infectious characteristics, [may either] cause, or significantly contribute to an increase in mortality or an increase in serious illness[, or] pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

HAZARDOUS MATERIALS AND SITES

The SPA is part of the Sunrise Douglas Community Plan and was originally known as the Sunrise Douglas 2 Specific Plan. Wallace Kuhl & Associates, Inc. (WKA) was retained to conduct a Phase I Environmental Site Assessment (ESA) for the Sunrise Douglas 2 Specific Plan in 1998. The purpose of the Phase I ESA was to document recognized environmental conditions (RECs) within the SPA related to current and historical uses of the area, and to evaluate the potential for releases of hazardous materials from on- or off-site sources that could affect environmental conditions at the SPA (WKA 1999).

Preparation of the Phase I ESA was guided by standards published by the American Society for Testing and Materials (ASTM) that were current in 1999. In 2005 these standards were updated to include:

- minimum qualifications for environmental assessors;
- interviews of past and present owners of the assessed property; and
- a visual inspection of the property or specific documentation if an inspection cannot be performed.

Because the standards for ESAs have changed since preparation of the Phase I ESA, and database searches were conducted over a decade before the time of release of this EIR/EIS, some of the information in the Phase I ESA conducted by WKA in 1998 is no longer accurate because various remedial actions have since occurred. While information from the Phase I ESA such as database queries can no longer be used, some issues from the Phase I ESA are still relevant to this analysis, as described below: asbestos, lead-based paint, pesticides, petroleum hydrocarbons, and polychlorinated biphenyls (PCBs). Furthermore, due to the age of the Phase I ESA, AECOM performed a search of several hazardous waste databases to determine the most current status. That information is also presented below.

ENVIRONMENTAL CONTAMINATION WITHIN THE SPA

WKA's review of aerial photographs from 1963 to 1991 indicates that the SPA has been used primarily for agriculture since at least 1963. The predominant land use was grazing and dry land farming. A few structures, identified as "dwellings" on the earlier historic topographic maps of the site have been subsequently removed. Other than a decrease or increase in the numbers of agricultural-related structures (rural residences, barns, livestock pens), the SPA has not changed substantially. No obvious hazardous materials concerns were observed by WKA from review of the historical aerial photography (WKA 1999).

The environmental records search and field reconnaissance identified several RECs located within the SPA. These consisted of (1) several above-ground structures which may contain asbestos and/or lead-based paint; (2) one underground fuel storage tank (UST); (3) numerous pole-mounted electrical transformers, some of which may contain PCBs; and (4) on-site wells and septic systems (WKA 1999).

Miscellaneous debris piles were noted as various locations throughout the SPA. These debris piles consisted of inert domestic debris, minor quantities of paper and plastic trash, and out-of-service vehicles. None of the visible debris appeared to be hazardous materials. Since the Phase I ESA was performed, these debris piles may or may not still be present on the SPA. To be conservative and ensure that the worst-case scenario is analyzed under CEQA and NEPA, their presence is assumed for purposes of this analysis.

AECOM performed a search in September 2010 of the following online databases:

- list of hazardous substances sites from the California Department of Toxic Substances Control (DTSC) EnviroStor database;
- list of leaking underground storage tank sites by County and Fiscal Year from the State Water Resources Control Board (SWRCB) GeoTracker database;
- list of solid waste disposal sites identified by SWRCB with waste constituents above hazardous waste levels outside the waste management unit;
- list of "active" Cease and Desist Order and Cleanup and Abatement Orders; and
- list of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the California Health and Safety Code, identified by DTSC.

There are no hazardous waste sites within the SPA that are listed on any of these databases (California Environmental Protection Agency [CalEPA] 2010). Furthermore, based on database searches conducted by AECOM, the UST listed in the Phase I ESA (WKA 1999) no longer appears as a database record. Therefore, for purposes of this analysis, it is assumed that environmental contamination associated with that UST has been remediated; therefore, it is not discussed further in this EIR/EIS.

Asbestos

Asbestos is designated as a hazardous substance when the fibers have potential to come in contact with air because the fibers are small enough to lodge in lung tissue and cause health problems. The presence of asbestos-containing materials (ACMs) in existing buildings poses an inhalation threat only if the ACMs are in a friable state. If the ACMs are not friable, then there is no inhalation hazard because asbestos fibers remain bound in the material matrix. Emissions of asbestos fiber to the ambient air, which can occur during activities such as renovation or demolition of structures made with ACMs (e.g., insulation), are regulated in accordance with Section 112 of the Federal Clean Air Act (CAA).

A records search of archived permit record databases at the Sacramento County Department of Public Works, Building Inspection Division, Commercial Plan Review Office did not indicate whether building materials containing asbestos were used in the construction of buildings in the SPA. Asbestos may be present in buildings constructed prior to the 1978-79 Federal ban of most friable asbestos-containing building materials (WKA 1999). The SPA is not located in an area containing asbestos-containing rock (i.e., serpentine).

Lead-Based Paint

Human exposure to lead has been determined by the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) to be an adverse health risk, particularly to young children. Demolition of structures containing lead-based paint requires specific remediation activities regulated by Federal, state, and local laws. The use of lead as an additive to paint was discontinued in 1978.

Review of historic U.S. Geological Survey (USGS) topographic maps indicates that the five on-site rural residences and four barns were built on or before 1980 and, thus, may contain lead-based paints (WKA 1999).

Pesticides

Rangeland and dry land farming do not typically require the application of persistent pesticides. The Sacramento County Agricultural Commissioner's Office had no Restricted-Use Permits on file for the SPA. These permits are often associated with registered chemical applications to agricultural land (WKA 1999).

Because neither historical nor current land uses within the SPA typically require application of persistent pesticides, and no Restricted-Use Permits were on file with the Sacramento County Agricultural Commissioner's Office, persistent pesticide contamination is unlikely (WKA 1999).

Petroleum Hydrocarbons

Review of the Sacramento County Environmental Management Department (EMD) records identified one farm-exempt fuel UST within the SPA on Assessor's Parcel No. (APN) 067-0100-0015, located at 12435 Kiefer Boulevard. Farm-exempt USTs are not required to register with the County. It is unknown if the farm-exempt fuel UST is present within the SPA. If present, the UST would require removal by the EMD. At the time of the Phase I ESA, the EMD had no record of hazardous materials releases at the SPA. Review of the EMD Regulatory Compliance list indicated no County-registered UST sites on or within 0.5 mile of the SPA (WKA 1999).

Polychlorinated Biphenyls

Prior to 1975, PCBs were commonly used in transformers, capacitors, and fluorescent light ballasts. In 1975, when it was demonstrated that PCBs were highly toxic, manufacture of PCBs was discontinued in the United States. Older pole-mounted electrical transformers, still in use, may contain PCBs.

WKA noted numerous pole-mounted electrical transformers throughout the SPA. Within the SPA, Sacramento Municipal Utility District (SMUD) and Pacific Gas and Electric Company (PG&E) own and maintain high-voltage, steel tower-mounted electrical transmission lines. These transmission lines run from northeast to southwest and bisect the northwesterly corner of APNs 067-0100-023 and 067-0090-026 southeast of the intersection of Kiefer Boulevard and Sunrise Boulevard, and southeast of the intersection of North Campus Drive and Rancho Cordova Parkway (see Exhibit 2-17 in Chapter 2 "Alternatives"). One SMUD tower containing a 230-kilovolt (kV) transmission line and a 69-kV sub-transmission line and one PG&E tower containing a 230-kV transmission line are located on the SPA. (MacKay & Somps 2010:3.)

In 1979, SMUD discontinued the purchase of PCB-containing transformers and removed them from its existing inventory. Sites developed after 1979 generally received PCB-free transformers as part of the electrical service

provided by SMUD. Some newer transformers are tagged "Non-PCB" with respect to PCB content. However, many transformers within the SPA likely predate 1979, and are not tagged regarding PCB content. No privately-owned transformers were observed within the SPA during field visits by WKA. No obvious evidence of transformer leakage was observed at accessible sites within the SPA (WKA 1999).

HAZARDOUS MATERIALS AND SITES IN THE PROJECT VICINITY

Preparation of the Phase I ESA included a review of Federal, state, and local agency databases for documented hazardous materials on or near the SPA. No sites were listed within the SPA; however, several were found in the project vicinity, and since these sites are still relevant in 2010, they are discussed below.

Kiefer Landfill

Kiefer Landfill is located approximately 0.75 mile southeast of the SPA boundary. The landfill is classified as Class III and accepts a variety of wastes, including mixed municipal, sludge (biosolids), and construction/demolition materials. Samples from some of the monitoring wells at the landfill indicated that wastes have been released to the groundwater. See Section 3.9, "Hydrology and Water Quality" for a detailed discussion of groundwater contaminants at the Kiefer Landfill.

Landfill gas is created when waste in a landfill decomposes. This gas is approximately 50% methane and 40% carbon dioxide. At Kiefer Landfill, gas is collected by a series of wells that connect to the on-site energy facility. Internal combustion engines convert gas into electricity, which is then delivered to SMUD's power distribution system. While this system provides a variety of benefits (e.g., reduction of greenhouse gas emissions, production of energy from a sustainable resource), there is a potential that these landfill gases could escape into the environment and adversely affect air quality. In addition, methane and carbon dioxide can act as carrier gases for trace VOCs and result in groundwater contamination. Due to these concerns, gas and leachate are inspected by the EMD on a monthly basis. To date, no adverse effects on air quality that would affect the SPA have been reported.

Inactive Rancho Cordova Test Site

The Inactive Rancho Cordova Test Site (IRCTS) is located approximately 1 mile north of the northernmost portion of the SPA. The site consists of a 2,728-acre area north of Douglas Road, south of White Rock Road, and east of Sunrise Boulevard. Gold-dredging activities occurred over approximately 70% of the site from the early 1900s until 1962. Since the mid-1960's it has been used by several aerospace companies, which has resulted in groundwater contamination with various VOCs. See Section 3.9, "Hydrology and Water Quality" for a detailed discussion of groundwater contaminants from the IRCTS.

Mather Air Force Base

Mather Air Force Base (AFB) is a state and Federal "Superfund-status" site located approximately 2¼ miles west of the SPA. The site is currently home to the Mather Regional Park, which houses a business airport (Sacramento Mather Airport) and a light industrial area. The Mather Army Aviation Support Facility (AASF) is located on a 30-acre parcel within the Mather Regional Park, and the airport is a joint-use facility, with military operations located on the north side of the runways (California State Military Museum 2007). Mather AFB opened in 1918 as a flight training school for the U.S. military and its allies. It remained a training base until 1993, when it was determined to be surplus under the Base Realignment and Closure Act. Operations at the base, including fire training, spill sites, landfills, and sewage treatment plants, contributed to the current soil and groundwater contamination issues, which occurred at 89 designated sites (EPA 2011). Remediation efforts at Mather AFB are ongoing, and there is still a potential for human exposure through accidental ingestion, inhalation, or direct contact with contaminated soil or groundwater. See Section 3.9, "Hydrology and Water Quality" for a detailed discussion of groundwater contaminants from Mather AFB.

Sacramento Rendering Company

The Sacramento Rendering Company is located at 11350 Kiefer Boulevard; approximately 2,200 feet west of the southwest portion of the SPA boundary. The rendering company "recycles animal by-products which consist of bones from supermarkets, butcher shops, and restaurants" and also receives "waste restaurant grease and trap grease…as well as products from slaughter houses and dead animals, predominantly from dairy ranches in the Sacramento and San Joaquin Valley." Animal carcasses from turkey and chicken ranches also are brought to their facilities. The facility discharges wastewater to settlement/evaporation ponds located between the plant buildings at a point approximately 1,400 feet southwest of Sunrise Boulevard. The sludges and solids that settle out from the liquid wastewater stream are disposed of off-site. The remaining wastewater is then diluted with groundwater from one of three on-site water supply wells and used to irrigate pastures located east and south of the rendering company, between the settlement/evaporation ponds and Sunrise Boulevard. Irrigated pastures that receive settled-out and diluted wastewaters are located between the settlement/evaporation ponds and Sunrise Boulevard (WKA 1999).

Wastewater discharge at the rendering company is permitted by the Central Valley Regional Water Quality Control Board (RWQCB). The RWQCB-issued operational permit requirements are contained in the RWQCB *Waste Discharge Requirements (WDRs), Order Number 95-038* and *Information Sheet*. Effluent samples are collected monthly and tested for nitrates such as Nitrogen, Total Dissolved Solids, and pH. Quarterly monitoring reports are submitted to the RWQCB. The facility does not have groundwater monitoring wells for checking ambient groundwater in relation to on-site operations of the settlement/evaporation ponds and irrigated pastures. The WDRs indicate that the ponds are underlain by "hardpan clays," into which "wastewater does not penetrate more than a few inches each year."

According to EMD records, four USTs that did not meet 1998 upgrade requirements, and thus had an expired permit to operate, were removed from the site on December 10, 1998. Trace concentrations of the fuel oxygenate methyl tertiary butyl ether (MTBE) were found in underlying soils of one of the USTs. Excavation of the underlying soils and resampling still revealed trace concentrations of MTBE at approximately 15 feet below the surface. The facility was transferred for continued oversight into EMD's *Site Assessment/Mitigation Section* in February 1999. A site assessment *Workplan* was subsequently approved by the County for subsurface drilling to determine the vertical extent of the MTBE discovered in subsurface soils. In the meantime, the RWQCB implemented a policy requiring groundwater sampling and testing when MTBE contamination is documented in subsurface soils.

See Section 3.2, "Air Quality," for further discussion of toxic air contaminants and odors relating to facilities located near the SPA.

HIGH-VOLTAGE TRANSMISSION LINES

High-voltage transmission lines are defined by the California Department of Education (CDE) as those with a line voltage of 50 kV or more. As discussed above, SMUD and PG&E own and maintain northeast/southwest-trending high-voltage, steel tower-mounted electrical transmission lines that bisect the northwesterly corners of APNs 067-0100-023 and 067-0090-026 southeast of the intersection of Kiefer Boulevard and Sunrise Boulevard, and southeast of the intersection of North Campus Drive and Rancho Cordova Parkway (see Exhibit 2-17 in Chapter 2 "Alternatives"). One 230-kV SMUD transmission line and one 69-kV SMUD sub-transmission line are located within a 200-foot-wide utility easement and one SMUD tower is located on the SPA. A 230-kV PG&E transmission line is within a 75-foot-wide utility easement that is parallel to the SMUD utility easement. One PG&E tower is located on the SPA. (MacKay & Somps 2010:3.)

AIRPORTS AND AIRSTRIPS

No public or private airports are located within 2 miles of the SPA, nor is the SPA located within the boundaries of an airport land use plan. The closest airport to the SPA is Mather Airport, which is located approximately 2¼ miles to the west.

MOSQUITO/VECTOR CONTROL

The mosquito population in the Sacramento Valley is most active in the spring and early summer. The female mosquito needs blood in order to produce eggs. Hosts that can supply blood include reptiles, amphibians, mammals, birds, and humans. All mosquito species are potential vectors of organisms that can cause disease to pets, domestic animals, wildlife, or humans.

The SPA is located within the Sacramento-Yolo Mosquito and Vector Control District (District). The District employs technicians certified by the Vector-Borne Disease Section of California Department of Health Services in pesticide usage, and mosquito and vector identification. The District solves mosquito problems using Integrated Pest Management techniques, which include surveillance and monitoring of mosquito breeding sources, reduction of mosquito breeding sites, community outreach and public education, and the use of chemical and biological methods to control both mosquito larvae and adult mosquitoes (District 2007). The District's mosquito control program is contained in its Mosquito and Mosquito-Borne Disease Management Plan (District 2003, amended 2005).

The District applies chemicals at extremely low rates, as recommended by EPA. Pesticides in use include biological controls, such as *Bacillus* sp.; methoprene, an insect growth regulator; and pyrethrins and pyrethroids, all of which have been evaluated and are regulated by EPA. Biological larvicides include *Bacillus thuringiensis israelensis* (Bti) and *Bacillus sphaericus*, which are naturally occurring bacteria. EPA indicates that the microbial pesticides Bti and *B. sphaericus* have undergone extensive testing before registration. They are essentially nontoxic to humans, so there are no concerns about human health effects with Bti or *B. sphaericus* when they are used according to label directions. EPA testing also indicates that there are no risks to wildlife, nontarget species, or the environment associated with these microbial pesticides, when used according to label directions (EPA 2007a). Only mosquitoes, black flies, and certain midges are susceptible to these bacteria. Other aquatic invertebrates and nontarget insects are unaffected. Larvicidal oils and monomolecular films are used to drown the mosquito larvae in their later aquatic stages, when they are not feeding, by forming a thin coating on the surface of the water. For example, methoprene is an insect growth regulator that is target-specific and is designed not to harm mammals, waterfowl, or beneficial predatory insects.

EPA also indicates that pyrethroids can be used for public health mosquito control programs without posing unreasonable risks to human health when applied according to the label. They also do not pose unreasonable risks to wildlife or the environment, although pyrethroids are toxic to fish and to bees. For that reason, EPA has established specific precautions on the label to reduce such risks, including restrictions that prohibit the direct application of products to open water or within 100 feet of lakes, streams, rivers, or bays (EPA 2007b). The District uses pyrethrins and pyrethroids for its adult mosquito fogging program in and around populated areas. Pyrethrins are insecticides that are derived from an extract of chrysanthemum flowers, and pyrethroids are synthetic forms of pyrethrins. These are generally applied by truck-mounted or handheld foggers. These materials used to control both adult and larval mosquitoes are registered with EPA, which evaluates safe use by assessing potential human health and environmental effects associated with use of each product (EPA 2007c).

WILDLAND FIRE HAZARDS

Wildland fires represent a significant threat in the State, particularly during the hot, dry summer months in more isolated areas where steep topography, limited access, and heavy fuel loading contribute to hazardous conditions. Wildland fire may be started by natural processes, primarily lightning, or it may be started by human activities.

The California Department of Forestry and Fire Protection (CAL FIRE) has established a fire hazard severity classification system, which assesses the wildland fire potential based on fuel load, climate, and topography. The classification system provides three classes of fire hazards: Moderate, High, and Very High. Many homes in the High and Very High fire hazard areas are considered by CAL FIRE to be without adequate protection from wildland or structural fires. The SPA is not located within or near wildlands. According to the CAL FIRE, the SPA is not located within a Very High Fire Hazard Severity Zone.

The California Public Resources Code requires the designation of State Responsible Areas (SRAs) (based on amount and type of vegetative cover, beneficial water uses, probable erosion damage, fire risks, and hazards), where the financial responsibility of preventing and suppressing fires falls primarily on the State. Fire protection outside the SRAs is the responsibility of local or Federal jurisdictions. The SPA is not located within an SRA. See Section 3.14, "Public Services," for detailed information about fire protection services.

3.8.2 REGULATORY FRAMEWORK

FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

Hazardous Materials Handling

At the Federal level, the principal agency regulating the generation, transport, and disposal of hazardous substances is EPA, under the authority of the Resource Conservation and Recovery Act (RCRA). RCRA established an all-encompassing Federal regulatory program for hazardous substances that is administered by EPA. Under RCRA, EPA regulates the generation, transportation, treatment, storage, and disposal of hazardous substances. RCRA was amended in 1984 by the Hazardous and Solid Waste Amendments of 1984 (HSWA), which specifically prohibits the use of certain techniques for the disposal of various hazardous substances. The Federal Emergency Planning and Community Right to Know Act of 1986 imposes hazardous-materials planning requirements to help protect local communities in the event of accidental release of hazardous substances. EPA has authorized the State of California to implement the Federal RCRA in California, based on the determination that California's Code of Regulations (Title 22, Division 4.5) contains the Federal hazardous waste regulations (RCRA regulations). DTSC is responsible for implementing Title 22.

Worker Safety Requirements

OSHA is responsible at the Federal level for ensuring worker safety. OSHA sets Federal standards for implementation of workplace training, exposure limits, and safety procedures for 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.

Regulation of Polychlorinated Biphenyls

The Toxic Substances Control Act of 1976 (Title 15 of the United States Code [USC], Section 2605) banned the manufacture, processing, distribution, and use of PCBs in totally enclosed systems. PCBs are considered hazardous materials because of their toxicity. They have been shown to cause cancer in animals, and to affect the immune, reproductive, nervous, and endocrine systems; studies also have shown evidence of similar effects in humans (EPA 2007d). The EPA Region 9 PCB Program regulates remediation of PCBs in several states, including California. Title 40 of the Code of Federal Regulations, Section 761.30(a)(1)(vi)(A) states that all owners of electrical transformers containing PCBs must register their transformers with EPA. Specified electrical equipment manufactured between July 1, 1978 and July 1, 1998 that does not contain PCBs must be marked by the manufacturer with the statement "No PCBs" (Section 761.40[g]). Transformers and other items manufactured before July 1, 1978 and containing PCBs, must be marked as such.

Clean Air Act

The Federal CAA was enacted in 1970. The most recent major amendments made by Congress were in 1990. The CAA requires EPA to establish primary and secondary national ambient air quality standards. The CAA also requires each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). Section 112 of the CAA defines hazardous air pollutants and sets threshold limits. As discussed elsewhere in this section, asbestos-containing substances are regulated by the EPA under the CAA. Additional information about the CAA is contained in Section 3.14, "Air Quality."

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

Hazardous Materials Handling

The California Hazardous Materials Release Response Plans and Inventory Law of 1985 requires preparation of hazardous materials business plans and disclosure of hazardous-materials inventories. A business plan includes an inventory of methods for handling hazardous materials, facility floor plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee training in safety and emergency response procedures (California Health and Safety Code, Division 20, Chapter 6.95, Article 1). Statewide, DTSC has primary regulatory responsibility for management of hazardous materials, with delegation of authority to local jurisdictions that enter into agreements with the State. Local agencies, including the EMD and the City Rancho Cordova, administer these laws and regulations.

Worker Safety Requirements

California OSHA (Cal-OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations within California. Cal-OSHA regulations pertaining to the use of hazardous materials in the workplace (Title 8 of the California Code of Regulations [CCR]) include requirements for safety training, availability of safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and preparation of emergency action and fire prevention plans. Cal-OSHA enforces hazard communication program regulations that contain training and information requirements, including procedures for identifying and labeling hazardous substances, communicating hazard information related to hazardous substances and their handling, and preparation of health and safety plans to protect workers and employees at hazardous-waste sites. The hazard communication program requires that employers make Material Safety Data Sheets available to employees and document employee information and training programs.

Emergency Response to Hazardous Materials Incidents

California has developed an emergency response plan to coordinate emergency services provided by Federal, state, and local governments and private agencies. Response to hazardous-material incidents is one part of this plan. The plan is managed by the Office of Emergency Services, which coordinates the responses of other agencies, including the California Environmental Protection Agency (CalEPA), California Highway Patrol (CHP), California Department of Fish and Game, Central Valley RWQCB, Sacramento County Sheriff's Department, and City of Rancho Cordova Police and Fire Departments.

Hazardous Materials Transport

The U.S. Department of Transportation (USDOT) regulates transportation of hazardous materials between states. State agencies with primary responsibility for enforcing Federal and state regulations and responding to hazardous materials transportation emergencies are CHP and California Department of Transportation (Caltrans). Together, these agencies determine container types used and license hazardous-waste haulers for transportation of hazardous waste on public roads.

California Government Code Section 65962.5 (Cortese List)

The provisions of California Government Code Section 65962.5 are commonly referred to as the "Cortese List" (after the Legislator who authored the legislation that enacted it). The Cortese List is a planning document used by the state and local agencies to comply with CEQA requirements in providing information about the location of hazardous materials release sites. California Government Code Section 65962.5 requires CalEPA to develop an updated Cortese List at least annually. DTSC is responsible for a portion of the information contained in the Cortese List. Other California state and local government agencies are required to provide additional hazardous material release information for the Cortese List.

REGIONAL AND LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

Goals and policies from the *City of Rancho Cordova General Plan* (City General Plan 2006) relating to hazardous materials that are applicable to the Proposed Project and alternatives under consideration are listed in Appendix K.

3.8.3 ENVIRONMENTAL CONSEQUENCES AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

The thresholds for determining the significance of impacts for this analysis are based on the environmental checklist in Appendix G of the State CEQA Guidelines. These thresholds also encompass the factors taken into account under NEPA to determine the significance of an action in terms of its context and the intensity of its impacts. The Proposed Project or alternatives under consideration were determined to result in a significant impact related to health and safety if they would do any of the following:

- 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 through the routine transport, use, or disposal of hazardous materials;
- emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one quarter mile of an existing or proposed school;
- be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5;
- result in a safety hazard for people residing or working in the project area where a project is located within an airport land use plan or within two miles of a public or private airport;
- impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan;
- expose people or structures to a significant risk of loss, injury, or death involving wildland fires.
- create public health hazards from increased exposure to mosquitoes by providing a substantial amount of new habitat for mosquitoes or other vectors; or
- create a safety hazard for aircraft operations based on the presence of water bodies within 5 miles of the Mather Airport.

ANALYSIS METHODOLOGY

This analysis is based primarily on review of the Phase 1 ESA conducted by WKA in 1999; a site visit conducted by AECOM in 2010; a review of aerial photographs of the SPA; and a review of the Cortese List Data Resources online database.

ISSUES NOT DISCUSSED FURTHER IN THIS EIR/EIS

Contain Hazardous Materials Sites Pursuant to Government Code Section 65962.5—The SPA does not contain any sites listed pursuant to Government Code Section 65962.5. Therefore, there would be no impact, and this issue is not evaluated further in this EIR/EIS.

Hazard to Project Residents from Location within Two Miles of an Airport—The SPA is not located within an area that is subject to an airport land use plan or within 2 miles of a public or private airport; thus, there would be no safety hazard for people residing or working in the SPA and this issue is not evaluated further in this EIR/EIS.

Risks Involving Wildland Fires—Because the SPA is not located in a wildland fire hazard zone, there would be no impact related to exposure of people or structures to significant risk of loss, injury, or death in relation to wildfires; therefore, this issue is not evaluated further in this EIR/EIS.

IMPACT ANALYSIS

Impacts that would occur under each alternative development scenario are identified as follows: NP (No Project), NCP (No USACE permit), PP (Proposed Project), BIM (Biological Impact Minimization), CS (Conceptual Strategy), and ID (Increased Development). The impacts for each alternative are compared relative to the PP at the end of each impact conclusion (i.e., similar, greater, lesser).

IMPACT 3.8-1 **Possible Exposure of Construction Workers, Project Workers, and Residents to Existing Hazardous Materials.** *The SPA could contain unknown hazardous materials, which could affect construction workers and the general public as a result of construction activities.*

NP

Because no new project-related construction would occur under the No Project Alternative, **no direct** or **indirect** impacts from exposure of people to existing hazardous materials would occur. ***[Lesser]***

NCP, PP, BIM, CS, ID

Project implementation would involve site grading, excavation for utilities, backfilling, demolition of existing facilities, and construction of new residential units and commercial facilities. As described above in Section 3.8.1, "Affected Environment," there are numerous debris piles on site (which for purposes of this analysis are assumed to still be present) and existing buildings that may have been constructed with asbestos-containing materials and lead-based paints. During construction activities and demolition, construction workers could come in contact with and be exposed to hazardous materials present in these on-site buildings, pole-mounted transformers (i.e., PCBs), and debris piles. Furthermore, the on-site agricultural residences have septic systems which, if not cleaned and closed properly, could result in exposure of construction workers and future residents to hazards materials. In addition, it is unknown if the farm-exempt fuel UST is present within the SPA on APN 067-0100-0015. Former land uses within SPA, such as agricultural uses, may have resulted in a release of hazardous materials into the soil, groundwater, or air. Because the Phase I ESA described above was prepared over 10 years ago and the requirements to prepare these documents has changed, the presence or likely presence of such materials is now

considered to be unknown. New sources of contamination could be associated with dumping or residential and agricultural uses (i.e., spills from storage tanks that contain hazardous materials). If hazardous materials exist, construction activities could cause construction workers and the general public to be potentially exposed to harmful substances. Because the presence of hazardous materials within the SPA is unknown, this **direct** impact is considered **potentially significant**. **No indirect** impacts would occur. ***[Similar]***

Mitigation Measure 3.8-1: Prepare a Remedial Action Plan, and Conduct Phase I and/or II Environmental Site Assessments and Implement Required Measures if Stained or Odiferous Soil is Discovered.

The project applicants shall implement the following measures before ground-disturbing activities in areas of debris piles, pole-mounted transformers, where demolition will occur, and other areas where evidence of hazardous materials contamination is observed or suspected through either obvious or implied evidence (i.e., stained or odorous soil) to reduce health hazards associated with potential exposure to hazardous substances:

- Prepare a plan that identifies any necessary remediation activities including excavation and removal of contaminated soils and redistribution of clean fill material within the SPA, if necessary. The plan shall include measures for the safe transport, use, and disposal of contaminated soil and building debris removed from the SPA. In the event that contaminated groundwater is encountered during site excavation activities, the contractor shall report the contamination to the appropriate regulatory agencies, dewater the excavated area, and treat the contaminated groundwater to remove contaminants before discharge into the sanitary sewer system. The project applicants shall be required to comply with the plan and applicable Federal, state, and local laws. The plan shall outline measures for specific handling and reporting procedures for hazardous materials and disposal of hazardous materials removed from the SPA at an appropriate off-site disposal facility.

- If stained or odiferous soil is discovered during project-related construction activities, the project applicants shall retain a registered environmental assessor to conduct a Phase 1 ESA, and if necessary, Phase II ESAs and/or other appropriate testing. Recommendations in the Phase I and II ESAs to address any contamination that is found shall be implemented before initiating ground-disturbing activities in these areas.

- Notify the appropriate Federal, state, and local agencies if evidence of previously undiscovered soil or groundwater contamination (e.g., stained soil, odorous groundwater) or if known or previously undiscovered USTs are encountered during construction activities. Any contaminated areas shall be remediated in accordance with recommendations made by the EMD, Central Valley RWQCB, DTSC, and/or other appropriate Federal, state, or local regulatory agencies.

- Obtain an assessment conducted by SMUD pertaining to the contents of any existing pole-mounted transformers that would be relocated or removed as part of project implementation. The assessment shall determine whether existing on-site electrical transformers contain PCBs and whether there are any records of spills from such equipment. If equipment containing PCB is identified, the maintenance and/or disposal of the transformer shall be subject to the regulations of the Toxic Substances Control Act.

- Retain a licensed contractor to remove all septic systems in accordance with local, state, and federal regulations.

- Retain a Cal-OSHA certified Asbestos Consultant before demolition of any on-site buildings to investigate whether any asbestos-containing materials or lead-based paints are present, and could become friable or mobile during demolition activities. If any materials containing asbestos or lead-based paints are found, they shall be removed by an accredited contractor in accordance with EPA and Cal-OSHA standards. In addition, all activities (construction or demolition) in the vicinity of

these materials shall comply with Cal-OSHA asbestos and lead worker construction standards. The materials containing asbestos and lead shall be disposed of properly at an appropriate off-site disposal facility.

Implementation: Project applicants for any particular discretionary development application

Timing: Before the start of construction activities

Enforcement: Central Valley Regional Water Quality Control Board, California Department of Toxic Substances Control, and/or the appropriate Federal, state, or local regulatory agency.

Implementing this mitigation measure would reduce the potentially significant impact from possible human exposure to unknown hazardous materials at the SPA to a **less-than-significant** level under the No USACE Permit, Proposed Project, Biological Impact Minimization, Conceptual Strategy, and Increased Development Alternatives because potentially hazardous materials would be identified; a site management plan that specifies remediation activities and procedures to appropriately identify, stockpile, handle, reuse, and/or remove and dispose of hazardous materials would be prepared and implemented; and hazardous materials that are encountered would be removed and properly disposed of or otherwise remediated by licensed contractors in accordance with Federal, state, and local laws and regulations.

IMPACT 3.8-2 **Potential Hazards from Possible Accident Conditions Involving the Release of Hazardous Materials into the Environment or Through the Routine Transport, Use, or Disposal of Hazardous Materials.** *Implementation of the project would involve the storage, use, and transport of hazardous materials, which is regulated by local, state, and Federal regulations.*

NP

Because no new project-related construction would occur under the No Project Alternative, **no direct** or **indirect** impacts to the public would occur through the routine transport, use, disposal, or risk of upset of hazardous materials. ***[Lesser]***

NCP, PP, BIM, CS, ID

Project development with residential and commercial uses would involve the storage, use, and transport of hazardous materials (e.g., asphalt, fuel, lubricants, paint) during construction activities. In addition, commercial uses associated with the project operation could include facilities such as gas stations and dry cleaners that could use on site and routinely transport hazardous materials on and off site. Transportation of hazardous materials on area roadways is regulated by CHP and Caltrans, and use of these materials is regulated by DTSC, as outlined in Title 22 of the CCR. The project applicant(s), builders, contractors, business owners, and others would be required to use, store, and transport hazardous materials in compliance with local, state, and Federal regulations during project construction and operation. Facilities that would use hazardous materials on site after the project is constructed would be required to obtain permits and comply with appropriate regulatory agency standards designed to avoid hazardous waste releases. Because the project construction contractors and businesses during the operational phase are required by law to implement and comply with existing hazardous materials regulations, impacts related to the creation of significant hazards to the public through routine transport, use, disposal, and risk of upset would be considered **less than significant. No indirect** impacts would result. ***[Similar]***

Mitigation Measure: No mitigation measures are required.

IMPACT 3.8-3 **Potential for Airspace Safety Hazards (Birdstrike) Associated with Project Water Features.** *The project would include the creation of on-site detention basins, which could attract waterfowl, thereby resulting in a potential safety hazard for aircraft flights associated with Mather Field.*

NP

Because no new project-related construction would occur under the No Project Alternative, **no direct** or **indirect** impacts related to birdstrike from creation of on-site water features would occur. ***[Lesser]***

NCP, PP, BIM, CS, ID

The SPA is approximately 3.5 miles southeast of Mather Airport. Federal Aviation Administration regulations recommend a separation of at least 5 statute miles from airport facilities to reduce risk of damage to aircraft resulting from high-speed collisions with birds or the ingestion of birds into aircraft engines. Damage or potential damage caused by birds and other wildlife is termed a "strike" or "strike hazard."

The SPA and Mather Airport are located between the American River (to the north) and Blodgett Reservoir to the southeast. The predominant wildlife habitat between these two water features and surrounding both the SPA and Mather Airport is annual grassland, which supports vernal pools and other seasonal wetland features such as creeks and drainages. The potential for wildlife to pass through or across the approach or departure airspace from Mather Airport while in transit from the American River to Blodgett Reservoir or other water features in the vicinity of the SPA constitutes an existing strike hazard, even without development of the project.

The project would include the construction of 12 detention basins totaling approximately 46 acres of surface area, each of which would range from approximately 1 acre to 7 acres in size. The basins would provide a combination of water quality, peak flow attenuation, hydro-modification, and flow duration control. The basins would temporarily collect water from storm events and other urban runoff, and treat the water before slowly releasing it into the on-site preserve (i.e., Kite Creek). The goal of this system is to prevent an increase in flows and a decrease in water quality over the existing conditions in order to protect the hydrologic integrity of the preserve areas within the SPA and plant and wildlife habitat surrounding the SPA (see Draft SunCreek Specific Plan attached as Appendix C).

The water in the detention basins would be gravity-released and would empty within approximately 48 hours after each storm event. The basins would be empty the vast majority of the time, although they may fill and drain numerous times each winter (Giberson, pers. comm., 2010). Each basin would also include a small, permanently-wet water-quality feature in the floor of the basin that averages about 15% of the total volume of the typical detention facility. This feature would treat low intensity storm and nuisance flows in order to remove suspended solids, heavy metals, and other constituents of urban runoff. Nuisance flows during the summer time would be drained through percolation trenches located in the floor of the basin. Although permanent ponding would occur within the water quality features in the floor of the detention basins, the size of these ponds (ranging from approximately 0.15 acres to 1.05 acres) would be small relative to the total size of the detention basins (Giberson, pers. comm., 2010). Management practices would include periodic weed abatement and other similar vegetation removal to prevent establishment of wetland habitat within the detention facilities. Since permanent ponding features within the wetland basins would approximate a maximum of 7 acres over the entire SPA (15% of the total acreage of proposed detention facilities), the total ponding acreage within the detention facilities would be less than the total acreage of wetland habitat that would be displaced (22.56 acres) from the SPA as a result of implementing the project. This would therefore represent an overall decrease in wetland habitat for waterfowl on the SPA.

In summary, numerous other water bodies that are not far from the SPA (e.g., Blodgett Reservoir, the American River, various seasonal wetland features) would have a much greater attraction for waterfowl than the small

amount of wetland features that would be created within the proposed on-site detention basins, and furthermore project development would eliminate approximately 22.56 acres of the existing wetlands (i.e., the existing waterfowl attractants). Therefore, it is unlikely that the construction of detention basins on the SPA would result in an increase in waterfowl and other birds, beyond what already exists, in the immediate area or within the Mather Airport flight zone. Therefore, this **indirect** impact is considered **less than significant**. **No direct** impacts would occur. ***[Similar]***

Mitigation Measure: No mitigation measures are required.

IMPACT 3.8-4 **Possible Exposure of Construction Workers, Project Workers, and Residents to Human Health Hazards Associated with Mosquito-Borne Diseases.** *The project includes construction of detention basins and stormwater canals, which are considered to be breeding habitat for mosquitoes. An increase in mosquitoes could result in an increased incidence of mosquito-borne diseases.*

NP

Because no new project-related construction would occur under the No Project Alternative, **no direct** or **indirect** impacts related to exposure of residents and workers to human health hazards associated with mosquito-borne diseases would occur. ***[Lesser]***

NCP, PP, BIM, CS, ID

As discussed in Chapter 2, "Alternatives," the project includes construction of detention basins and stormwater canals. The proposed detention basins would incorporate physical characteristics that would function as biological vector controls. The detention ponds would be designed to percolate flows that exceed the evaporation rate into the ground through specially designed and constructed percolation trenches placed in the bottom of detention basin (MacKay & Somps 2011). This feature would reduce stagnant water surfaces, thereby minimizing the habitat for propagation of mosquito larvae and making it difficult for mosquito larvae to survive. In addition, habitat would be provided for predator fish species to control vectors.

The SPA is located within the Sacramento-Yolo Mosquito Vector Control District. The District employs technicians certified by the California Department of Public Health (CDPH) in pesticide usage. The District has stated that the materials they use to control both adult and larval mosquitoes are the safest and least toxic materials available for public health mosquito control. Pesticides include biological controls, such as *Bacillus* sp.; methoprene, an insect growth regulator; and pyrethrins and pyrethroids.

Because project design would incorporate mosquito control, and because the County considers its control mechanisms to be appropriate and safe for human exposure, and because the measures would not result in a new risk to residents and workers of adverse health effects associated with vector-borne diseases or hazards associated with vector control, this impact would be **less than significant**. **No indirect** impacts would occur. ***[Similar]***

Mitigation Measure: No mitigation measures are required.

IMPACT 3.8-5 **Potential for Accidental Release of Hazardous Materials and Handling of Hazardous or Acutely Hazardous Materials, Substances, or Waste within One-Quarter Mile of an Existing or Proposed School**. *The project includes construction of several on-site schools. Project implementation would involve the transport, use, and disposal of hazardous materials, and the potential for accidental release of hazardous materials.*

NP

Because no new schools associated with the project would be built under the No Project Alternative, **no direct** or **indirect** impacts related to hazardous emissions or handling of hazardous wastes within 1/4 mile of a school would occur. ***[Lesser]***

NCP, PP, BIM, CS, ID

Implementation of the No USACE Permit, Proposed Project, Biological Impact Minimization, Conceptual Strategy, and Increased Development Alternatives include construction of schools. (Three schools would be constructed under the No USACE Permit Alternative, four schools would be constructed under the Biological Impact Minimization and Increased Development Alternatives, and five schools would be constructed under the Proposed Project and Conceptual Strategy Alternatives.) Hazardous materials would be handled on site as part of project implementation and may also be discovered and released during construction activities, as discussed above under Impact 3.8-1, "Possible Exposure of Construction Workers, Project Workers, and Residents to Existing Hazardous Material" and Impact 3.8-2, "Potential Hazards from Possible Accident Conditions Involving the Release of Hazardous Materials." However, because the project is required by law to implement and comply with existing hazardous materials regulations, there is not an increased risk of accidents associated with the use of hazardous materials during project construction. In the case that previously unknown hazardous materials are discovered during construction activities, potential impacts associated with the risk of release would be reduced to a less-than-significant level with implementation of Mitigation Measure 3.8-1, "Prepare a Remedial Action Plan, and Conduct Phase I and/or II Environmental Site Assessments and Implement Required Measures if Stained or Odiferous Soil is Discovered."

Areas planned as Local Town Centers and Commercial Mixed-Use under the Proposed Project and the other four action alternatives could be developed into service-related businesses, which could produce and/or use hazardous materials or hazardous emissions. Business such as gas stations, automotive mechanics, and dry cleaners handle hazardous materials and could accidentally release chemicals into the air, soil, and groundwater (e.g., gas, oil, tetrachloroethylene), which could potentially affect children at school. However, under the No USACE Permit, Proposed Project, Biological Impact Minimization, Conceptual Strategy, and Increased Development Alternatives, there would be no designated Local Town Centers or Commercial Mixed-Use land uses within ¼ mile of a proposed school (see Exhibits 2-20, 2-4, 2-22, 2-24, and 2-26, respectively). Because State CEQA Guidelines CCR Section 15186 establishes 1/4 mile as the distance that potential health impacts to schools should be considered, **direct** and **indirect** impacts associated with hazardous emissions and hazardous materials handling within 1/4 mile of a school would be **less than significant.**

Thus, because the release of hazardous materials and exposure of people to existing hazardous materials would be less than significant, and the land use plans indicates that hazardous materials would not be used within 1/4 mile of project-related schools, the **direct** impact of hazardous emission or handling of hazardous or acutely hazardous materials, substance, or waste within 1/4 mile of an existing or proposed school would be **less than significant**. **No indirect** impacts would occur. ***[Similar]***

Mitigation Measure: No mitigation measures are required.

3.8.4 RESIDUAL SIGNIFICANT IMPACTS

Impacts associated with the release of hazardous materials into the environment or through the routine transport, use, or disposal of hazardous materials, airspace safety hazards associated with project water features, hazardous emissions and hazardous materials handling near to schools, and hazards associated with exposure of people to mosquito-borne diseases would be less than significant. Implementation of Mitigation Measure 3.8-1 would reduce impacts related to possible exposure of construction works and the general public to known hazardous

materials to a less-than-significant level. Therefore, project implementation would not result in any residual significant impacts related to hazards and hazardous materials.

3.8.5 CUMULATIVE IMPACTS

Health and safety impacts associated with the past or current uses of a project site usually occur on a project-by-project basis, and are generally limited to the specific project site; in this case, the SPA, and immediate vicinity and nearby roadways.

Implementation of the project could result in possible exposure to existing on-site hazardous materials during project construction activities. The five existing rural residences within the SPA may contain hazardous substances including asbestos and lead, have associated septic systems, and/or pole-mounted transformers that could contain PCBs. However, demolition of buildings containing these materials is regulated by EPA and Cal-OSHA, and the project includes a mitigation measure requiring compliance with these regulations. In addition, implementation of Mitigation Measure 3.8-1 would minimize the potential for exposure of people or the environment to hazardous materials encountered during construction activity (e.g., piles of debris, odiferous or stained soils, underground storage tanks, or septic systems). It is unknown whether any of the related project sites contain existing hazards materials (e.g., piles of debris, underground or aboveground storage tanks, septic systems, stained soils [indicating potential contamination], lead-based paints, asbestos-containing materials, or PCBs). However, if hazardous materials are encountered on site during construction of the related projects, the associated impacts would be localized to those projects and would not be additive to other hazardous materials-related impacts on the SPA. Therefore, the project would not result in a cumulatively considerable incremental contribution to a cumulatively significant impact related to exposure to existing hazardous materials.

The SunCreek Specific Plan project, and the related projects, would involve the storage, use, disposal, and transport of hazardous materials (such as asphalt, fuel, lubricants, and solvents) to varying degrees during demolition, construction, and operation. Facilities that would use hazardous materials on site after the project and the related projects are constructed would be required to obtain permits and comply with appropriate regulatory agency standards designed to avoid hazardous waste releases. The storage, use, disposal, and transport of hazardous materials are extensively regulated by various Federal, state, and local agencies, and therefore construction companies and businesses (during the operational phase) that would handle any hazardous substances would be required by law to implement and comply with these existing hazardous-materials regulations. Therefore, a cumulatively significant impact would not occur, and the project would not result in a cumulatively considerable incremental contribution to a cumulatively significant impact associated with hazardous materials storage and transport.

Impacts associated with hazardous emissions and the handling of hazardous materials near to schools are considered a hazard based upon the measurable distance of 1/4 mile. Because there are no schools existing or proposed within 1/4 mile of SPA land that is designated for potentially hazardous operations (e.g., gas stations, automotive repair shops, dry cleaners), the cumulative context is considered to be localized to the SPA; thus, the project would not result in a cumulatively considerable incremental contribution to a cumulatively significant impact associated with hazardous emission and/or the handling of hazardous materials near to schools.

The creation of mosquito-breeding habitat and the associated increase in mosquitoes and mosquito-borne diseases affects the area covered by the Sacramento-Yolo Mosquito Vector Control District. While the District exists due to the existing hazards associated with an existing mosquito population, these populations are monitored. When necessary, the District employs biological vector controls to reduce mosquito populations throughout its service area (which includes the SPA and the related projects). Furthermore, the on-site detention basins would be designed with mosquito controls. Thus, because the project would not result in a substantial increase in mosquito habitat, and because populations would continue to be monitored and controlled by the District, project implementation would not result in a cumulatively considerable incremental contribution to a cumulatively significant impact to human health associated with mosquito-borne diseases.