3.8 Hazards and Hazardous Materials

This supplemental environmental impact report (SEIR) addresses proposed modifications to the B.F. Sisk Dam Safety of Dams Modification Project, which was previously evaluated in the B.F. Sisk Dam Safety of Dams Modification Project Environmental Impact Statement/Environmental Impact Report (2019 EIS/EIR). The project addressed in the 2019 EIS/EIR is referred to herein as the Approved Project; the Approved Project with proposed modifications identified since certification of the 2019 EIS/EIR is referred to herein as the Modified Project.

This section describes the existing hazards and hazardous materials conditions of the Modified Project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies any applicable mitigation measures related to implementation of the Modified Project.

The hazardous materials analysis includes potential incidental spills during construction and potential for encountering contaminated soil and/or groundwater during construction. The hazards analysis also includes the potential for wildfire and conflict with local airports. Potential impacts associated with other hazards, including flooding, seismic, and landslide risk are analyzed in Section 3.4, Flood Protection, and Section 3.13, Geology, Seismicity, and Soils.

3.8.1 Existing Conditions

3.8.1.1 Definition of Hazardous Materials and Hazardous Wastes

As defined in the California Health and Safety Code Section 25501, "hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant 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 that a handler or the administering agency has a reasonable basis for believing would be injurious to the health and safety of persons, or harmful to the environment if released into the workplace or the environment.

According to California Code of Regulations, Title 22, Division 4.5, substances characterized by specific levels of toxicity, ignitability, corrosivity, or reactivity are considered hazardous waste. Hazardous wastes are hazardous substances that no longer have a practical use, such as material that has been abandoned, discarded, spilled, contaminated, or are being stored prior to proper disposal.

Other types of hazardous materials include radioactive and biohazardous materials. Radioactive materials and wastes contain radioisotopes, which are atoms with unstable nuclei that emit ionizing radiation to increase stability. Radioactive waste mixed with chemical hazardous waste is referred to as "mixed wastes." Biohazardous materials and wastes include anything derived from living organisms, which may be contaminated with disease-causing agents, such as bacteria or viruses.

California Code of Regulations, Title 22, Division 4.5, Chapter 11, Article 2, Section 66261.10 provides the following definition for hazardous waste:

> [A] waste that exhibits the characteristics that may: (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, or disposed or otherwise managed.

California Health and Safety Code Sections 25517 and 25141 define hazardous waste as a waste that because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or pose a substantial present or potential hazard to human health or the environment, due to factors including, but not limited to, carcinogenicity, acute toxicity, chronic toxicity, bioaccumulative properties, or persistence in the environment, when properly treated, stored, transported, or disposed of, or otherwise managed.

If improperly handled, hazardous materials and wastes can cause public health hazards when released to the soil, groundwater, or air. The four basic exposure pathways through which an individual can be exposed to a chemical agent include inhalation, ingestion, bodily contact, and injection. Exposure can come as a result of an accidental release during transportation, storage, or handling of hazardous materials. Disturbance of subsurface soil during construction can also lead to exposure of workers or the public from stockpiling, handling, or transportation of soils contaminated by hazardous materials from previous spills or leaks.

3.8.1.2 Regulatory Records Review

Government Code Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to compile a list of hazardous waste and substances sites (Cortese List). While the Cortese List is no longer maintained as a single list, the following databases provide information that meet the Cortese List requirements:

1. List of Hazardous Waste and Substances sites from the California Department of Toxic Substances Control (DTSC) Envirostor database (Health and Safety Codes 25220, 25242, 25356, and 116395).
2. List of Leaking Underground Storage Tank (LUST) Sites by County and Fiscal Year from the State Water Resources Control Board GeoTracker database (Health and Safety Code 25295).
3. List of solid waste disposal sites identified by the State Water Resources Control Board with waste constituents above hazardous waste levels outside the waste management unit (Water Code Section 13273 subdivision (e) and California Code of Regulations Title 14 Section 18051).
4. List of “active” Cease and Desist Orders and Cleanup and Abatement Orders from the State Water Resources Control Board (Water Code Sections 13301 and 13304); and
5. List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, identified by DTSC.

A search of these Cortese List databases was conducted to identify Cortese List sites within 1 mile of the Modified Project site. A search of the GeoTracker database (SWRCB 2020a) indicated the following sites are in the Modified Project vicinity:

> **San Luis Reservoir State Recreation Area Maintenance Facility**. Geotracker LUST site T0604700256 is located at the San Luis Reservoir State Recreation Area (SRA) Maintenance Facility on Gonzaga Road (Figure 3.8-1A, Hazardous Materials Sites, Northern Portion, and Figure 3.8-1B, Hazardous Materials Sites, Southern Portion). Leaking gasoline and waste oil underground storage tanks located immediately south of the maintenance shop resulted in petroleum hydrocarbon concentrations in soil and groundwater beneath the site, including gasoline free product floating on groundwater. Soil and groundwater remediation were completed from 1999 to 2009. Additional site assessment is currently being evaluated for this site to determine the extent of groundwater contamination. The impacted groundwater is not considered a drinking water source (SWRCB 2020b).

Geotracker site T0000004714 is located at the same maintenance facility. A concrete vehicle wash pad located on the east side of the maintenance shop drained into a sump, passed through an oil-water separator, and then was discharged through a subsurface pipe into the unpaved area immediately north of the maintenance facility. The area impacted was approximately 60 feet by 60 feet. Soil samples were collected in 2013, to a depth of 15 feet, and analyzed for total petroleum hydrocarbons, volatile organic compounds (including solvents and fuel oxygenates), and metals. No significant concentrations of these constituents were detected. Therefore, the case was closed with respect to regulatory compliance in November 2013, indicating that no further action is required with respect to site assessment and/or remediation (SWRCB 2020c).

Forebay Chevron Station. Geotracker LUST site T10000005867 is located near the intersection of State Route (SR) 152 and SR-33, at 29860 Gonzaga Road (Figure 3.8-1A and Figure 3.8-1B). Leaking gasoline underground storage tanks resulted in petroleum hydrocarbon concentrations in soil and groundwater beneath the site. Additional soil sampling will be required to define the lateral and vertical extent of contamination. Installation of monitoring wells will be required also to evaluate the lateral extent of groundwater contamination. As of 2018, the Central Valley Regional Water Quality Control Board (CVRWQCB) has requested that an interim remedial action plan be prepared. The groundwater flow direction is currently unknown, but based on the local topography, groundwater likely flows toward the north, in the direction of O'Neill Forebay and Borrow Area 6 of the Approved Project. Static groundwater levels were measured at a depth of 33 feet beneath the site (SWRCB 2020d).

A search of the EnviroStor database (DTSC 2020) indicated the following site is in the vicinity of the Modified Project:

Romero Ranch. EnviroStor site 24020001 is located at the northwest intersection of SR-152 and SR-33 (Figure 3.8-1A and Figure 3.8-1B). A concrete-lined dip tank was used at this ranch to treat cattle for external parasites. Pesticides were introduced with the liquids that were used in the dip tank. Residues of pesticides, including dichloro-diphenyl-trichloroethane (DDT) and toxaphene, have been found in soils in the area around the dip tank and contaminated soils have been removed. The site was included in the DTSC Voluntary Cleanup Program and was closed with respect to regulatory oversight in December 1998, indicating that no further action is required with respect to site assessment and/or remediation.

A search of the Solid Waste Information System database (CalRecycle 2020) indicated that no sites are in the vicinity of the Modified Project. The closest such site is as follows:

Billy Wright Disposal Site. This permitted, active solid waste landfill is located on Billy Wright Road, approximately 6 miles east of San Luis Reservoir, at the closest point. This landfill is operated by Merced County Regional Waste Management, under the jurisdiction of Merced County's Department of Public Health, Division of Environmental Health. The facility was inspected four times in 2020 and has no outstanding enforcement actions.

3.8.1.3 Site History

Historical aerial photographs and historic topographic maps were reviewed for the Modified Project area (NETR 2020). Online historical aerial photographs were available from 1953, 1967, 1971, 1981, 1982, 1998, 2005, 2009, 2010, 2012, 2014, and 2016. Historic topographic maps were available from 1920, 1922, 1938, 1940,

1947, 1954, 1964, 1972, 1980, 2012, 2015, and 2018. The following is based on a review of these aerial photographs and topographic maps.

- From 1920 to 1953, the Modified Project area was undeveloped, except for a small agricultural area, and one to two residences, immediately east of the present-day dam, on the San Luis Ranch. Pacheco Pass Road traversed the present-day reservoir location.
- By 1967, the dam had been constructed and included the San Luis Reservoir SRA Headquarters, on Gonzaga Road, and the San Luis Reservoir Maintenance Facility, at the north end of Gonzaga Road. Conditions in the vicinity of these facilities and the borrow areas have remained relatively the same up to the present day.
- The San Luis Creek Day Use Area was completed by 1982. The proposed campground area has been undeveloped since at least 1953.

3.8.1.4 Pipelines and Oil Drilling Features

A search was conducted for oil drilling features and hazardous pipelines within the Modified Project area that could impact the proposed areas of ground disturbance. The search included the National Pipeline Mapping System (NPMS 2020) and the California Geologic Energy Management Division Well Mapping database (CalGEM 2020). Based on these resources, hazardous liquid pipelines, a gas transmission line, and a dry/abandoned oil well are located immediately east of O'Neill Forebay (Figure 3.8-1A).

3.8.1.5 School Sites

No schools are located within 0.25 miles of the Modified Project sites. The closest school is Romero Elementary School, of the Gustine Unified School District, located approximately 1.4 miles northeast of O'Neill Forebay.

3.8.1.6 Airports

The Modified Project is not located within an Airport Land Use Plan, and is not it located within 2 miles of a public use airport or private airstrip. The closest airport is the Los Banos Municipal Airport, located approximately 7.5 miles east of O'Neill Forebay. The San Luis Reservoir Seaplane Base, owned by the California Department of Parks and Recreation, allowed water landings on San Luis Reservoir until 2015 when the aquaport was closed (Heberling, pers. comm. 2020).

3.8.1.7 Fire Hazards

Fire environments are dynamic systems and are influenced by many types of environmental factors and site characteristics. Fires can occur in any environment where conditions are conducive to ignition and fire movement. The three major components of fire environment are vegetation (fuels), climate, and topography. The state of each of these components and their interactions with each other determines the potential characteristics and behavior of a wildfire. In addition, the type, location, and intensity of a wildfire can affect wildlife, vegetation, air quality, water quality, and slope stability to varying degrees.

Based on Fire Hazard Severity Zone (FHSZ) mapping data (CAL FIRE 2007), most of the Modified Project, including the proposed campground, the San Luis Creek Day Use Area, and dam improvement areas, are in Moderate FHSZs. However, one additional staging/stockpiling area and the Basalt Hill Borrow Area are in High FHSZs (CAL FIRE

2007). The California Department of Forestry and Fire Protection (CAL FIRE) uses FHSZs to classify anticipated fire-related hazards for the entire state and includes classifications for State Responsibility Areas, Local Responsibility Areas, and Federal Responsibility Areas. Fire hazard severity classifications consider vegetation, topography, weather, crown fire production, and ember production and movement. The High and Very High Fire Hazard Severity designations can be attributed to a variety of factors including highly flammable, dense, drought-adapted chaparral vegetation; seasonal, strong winds; and a Mediterranean climate that results in vegetation drying during the fall months. CAL FIRE also maps and ranks areas of fire threat, which indicates the level of fire threat based on the potential fire behavior (fuel rank) and expected fire frequency (fire rotation) at a given location (CAL FIRE 2020a). The proposed campground occurs within areas ranked as moderate, high, and very high fire threat, the San Luis Creek Day Use Area is largely unmapped, though bordered by areas ranked as high and very high fire threat, and the remaining Modified Project areas are ranked as high and very high fire threat. Figure 3.8-2, Fire Hazard Severity Zones, identifies the CAL FIRE FHSZ designations in the vicinity of the Modified Project.

The following sections provide more information regarding the fire environment associated with the Modified Project and potential environmental effects of wildfire burning on or near the Modified Project site.

Vegetation/Fuels

As described in Section 3.9, Biological Resources, there are eight vegetation communities and/or land cover types that occur in the additional impact areas: annual grassland, purple needlegrass grassland, scrub/chaparral, freshwater emergent wetland, valley foothill riparian, lacustrine, eucalyptus woodland, and urban/disturbed. Variations in vegetative cover type and species composition have a direct effect on fire behavior. Some plant communities and their associated plant species have increased flammability based on plant physiology (resin content), biological function (flowering, retention of dead plant material), physical structure (bark thickness, leaf size, branching patterns), and overall fuel loading. For example, grass dominated plant communities become seasonally prone to ignition and produce lower intensity, higher spread rate fires. In comparison, scrub/chaparral can produce higher heat intensity and higher flame lengths under strong, dry wind patterns, but does not typically ignite or spread as quickly as light, flashy grass fuels.

Another important factor is the dynamic nature of vegetation communities. Fire presence and absence at varying cycles or regimes disrupts plant succession, setting plant communities to an earlier state where less fuel is present for a period of time as the plant community begins its succession again. High frequency fires tend to convert shrublands to grasslands or maintain grasslands, while fire exclusion tends to convert grasslands to shrublands, over time. In general, biomass and associated fuel loading will increase over time, assuming that disturbance (fire, grading) or other fuel management efforts are not implemented. It is possible to alter successional pathways for varying plant communities through manual alteration.

Wind and Weather

As described in Section 3.2, Air Quality, the Modified Project lies within the San Joaquin Valley Air Basin. The San Joaquin Valley is in a Mediterranean Climate Zone, influenced by a subtropical high-pressure cell most of the year and characterized by warm, dry summers and cooler winters. Mediterranean climates are characterized by sparse rainfall, which occurs mainly in winter. Summertime maximum temperatures in the San Joaquin Valley often exceed 100°F. Winds in the San Joaquin Valley most frequently blow from the northwesterly direction, especially in the summer. The region's topographic features restrict air movement and channel the air mass towards the southeastern end of the San Joaquin Valley. Marine air can flow into the San Joaquin Valley Air Basin from the Sacramento–San Joaquin River Delta and over Altamont Pass and Pacheco Pass, where it can flow through the San Joaquin Valley, over the Tehachapi

Pass, into the Mojave Desert Air Basin. The Coastal Range and the Sierra Nevada are barriers to air movement to the west and east, respectively. A secondary but significant summer wind pattern is from the southeasterly direction and can be associated with nighttime drainage winds, prefrontal conditions and summer monsoons.

Two significant diurnal wind cycles that occur frequently in the San Joaquin Valley are the sea breeze and mountain-valley upslope and drainage flows. The sea breeze can accentuate the northwest wind flow, especially on summer afternoons. Nighttime drainage flows can accentuate the southeast movement of air down the San Joaquin Valley. In the mountains during periods of weak synoptic scale winds, winds tend to be upslope during the day and downslope at night. Nighttime and drainage flows are pronounced during the winter when flow from the easterly direction is enhanced by nighttime cooling in the Sierra Nevada. Eddies can form in the valley wind flow.

Terrain

Near the southern shoreline of San Luis Reservoir, south of Basalt Road, the Modified Project area consists of moderately to steeply sloped, undulating, and sparsely vegetated hillsides. North of Basalt Road, near the southeastern shoreline of the reservoir, the Modified Project consists of low-lying flat topography (Figure 2-4B, Modified Project Detail). Southeast of the dam embankment, Borrow Area 12 (Figure 2-4B) consists of an approximately 28-acre hillside that is about 100 feet higher than the surrounding lower-lying area. The top of Borrow Area 12 is relatively flat, having been used in the past as a borrow area for the initial construction of the dam. The adjoining (to the south) 200-acre Borrow Area 14 encompasses four low hills, which are up to 400 feet higher than the downstream base of the dam. The northwestern and western shoreline of O'Neill Forebay, in the vicinity of the proposed campground and the existing San Luis Creek Day Use Area, consists of relatively flat-lying areas adjacent to the shoreline, with gentle to moderately sloping hillsides along the western portions of these additional impact areas.

Regionally, the Modified Project is situated along the northeastern edge of the Diablo Range where it slopes easterly down to the San Joaquin Valley. Terrain in this region, and on the Modified Project site, include components that are favorable to wildfire spread including steep slopes, ravines, ridges, mountains, and valleys. These terrain features influence the speed and direction of air movement, which has a direct effect on wildfire behavior. Steep terrain typically results in faster upslope fire spread due to pre-heating of uphill vegetation. Flat areas typically result in slower fire spread when absent of windy conditions. Topographic features such as saddles, canyons, and chimneys (land formations that collect and funnel heated air upward along a slope) may form unique circulation conditions that concentrate winds and funnel or accelerate fire spread. For example, fire generally moves slower downslope than upslope. Terrain may also buffer, shelter, or redirect winds away from some areas based on canyons or formations on the landscape. Saddles occurring at the top of drainages or ridgelines may facilitate the migration of wildfire from one canyon to the next.

Fire History

Fire history data can provide an understanding of fire frequency, fire type, burn severity, significant ignition sources, and other information relevant to understanding the fire and fuels environment in an area. There have been numerous recorded wildfires within the Modified Project area. Fire history data was obtained from CAL FIRE's Fire and Resources Assessment Program database (CAL FIRE 2020b). The Fire and Resources Assessment Program database summarizes fire perimeter data dating to the late 1800s, but which is incomplete due to the fact that it includes only fires over 10 acres in size and has incomplete perimeter data, especially for the first half of the twentieth century (Syphard and Keeley 2016). However, the data does provide a summary of recorded fires and can be used to show whether large fires have occurred in the Modified Project area, which indicates whether they may be possible in the future.

Fire history records document 37 wildfires within 5 miles of the Modified Project area between 1952 and 2016 (CAL FIRE 2020b), primarily between O'Neill Forebay, SR-152, and McCabe Road and along both sides of SR-152 along the north side of San Luis Reservoir. Based on a review of the fire history information, average fire return interval for the area within 5 miles of the Modified Project site is 1.8 years, with intervals ranging from 0 (multiple fires in the same year) to 10 years. Average fire return interval for large fires (greater than 1,000 acres) within 5 miles of the Modified Project site is 6.6 years, with intervals ranging from 1 to 15 years (CAL FIRE 2020b).

3.8.2 Relevant Plans, Policies, and Ordinances

3.8.2.1 Federal

Toxic Substances Control Act

The Toxic Substances Control Act of 1976 provides the U.S. Environmental Protection Agency (EPA) with authority to require reporting, record-keeping, and testing requirements, and restrictions relating to chemical substances and/or mixtures. Certain substances are generally excluded from the Toxic Substances Control Act, including food, drugs, cosmetics, and pesticides.

Hazardous Materials Transportation Act

Transportation of hazardous materials is regulated by the U.S. Department of Transportation's Office of Hazardous Materials Safety. The office formulates, issues, and revises hazardous materials regulations under the Federal Hazardous Materials Transportation Law. The hazardous materials regulations cover hazardous materials definitions and classifications, hazard communications, shipper and carrier operations, training and security requirements, and packaging and container specifications. The hazardous materials transportation regulations are codified in Title 49, Parts 100–185 of the Code of Federal Regulations.

The hazardous materials transportation regulations require carriers transporting hazardous materials to receive training in the handling and transportation of hazardous materials. Training requirements include pre-trip safety inspections, use of vehicle controls and equipment including emergency equipment, procedures for safe operation of the transport vehicle, training on the properties of the hazardous material being transported, and loading and unloading procedures. All drivers must possess a commercial driver's license as required by Title49, Part 383 of the Code of Federal Regulations. Vehicles transporting hazardous materials must be properly placarded. In addition, the carrier is responsible for the safe unloading of hazardous materials at the site, and operators must follow specific procedures during unloading to minimize the potential for an accidental release of hazardous materials.

Occupational and Safety Health Act

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

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986

amendments to RCRA enabled the EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. The Federal Hazardous and Solid Waste Amendments are the 1984 amendments to RCRA that focused on waste minimization and phasing out land disposal of hazardous waste, as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.

Regional Screening Levels

The EPA provides regional screening levels for chemical contaminants to provide comparison values for residential and commercial/industrial exposures to soil, air, and tap water (drinking water). Regional Screening Levels (RSLs) are available on the EPA's website and provide a screening level calculation tool to assist risk assessors, remediation project managers, and others involved with risk assessment and decision making. RSLs are also used when a site is initially investigated to determine if potentially significant levels of contamination are present to warrant further investigation. In California, the DTSC Human and Ecological Risk Office (HERO) incorporated the EPA RSLs into the HERO human health risk assessment. HERO created Human Health Risk Assessment Note 3, which incorporates HERO recommendations and DTSC-modified screening levels based on review of the EPA RSLs. The DTSC-modified screening levels should be used in conjunction with the EPA RSLs to evaluate chemical concentrations in environmental media at California sites and facilities.

Federal Response Plan

The Federal Response Plan of 1999, as amended in 2003, is a signed agreement among 27 federal departments and agencies, including the American Red Cross, that (1) provides the mechanism for coordinating delivery of federal assistance and resources to augment efforts of state and local governments overwhelmed by a major disaster or emergency; (2) supports implementation of the Robert T. Stafford Disaster Relief and Emergency Act, as well as individual agency statutory authorities; and (3) supplements other federal emergency operations plans developed to address specific hazards. The Federal Response Plan is implemented in anticipation of a significant event likely to result in a need for federal assistance or in response to an actual event requiring federal assistance under a presidential declaration of a major disaster or emergency.

International Fire Code

The International Fire Code (IFC), created by the International Code Council, is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The IFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The IFC and the International Building Code use a hazard classification system to determine what measures are required to protect against structural fires. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, IFC employs a permit system based on hazard classification. The IFC is updated every 3 years.

National Fire Protection Association Codes, Standards, Practices, and Guides

National Fire Protection Association (NFPA) codes, standards, recommended practices, and guides ("NFPA Documents") are developed through a consensus standards development process approved by the American National Standards Institute. This process brings together professionals representing varied viewpoints and interests to achieve consensus on fire and other safety issues. NFPA standards are recommended guidelines and nationally accepted good practices in fire protection but are not law or codes unless adopted as such or referenced as such by the California Fire Code (CFC) or the Local Fire Agency.

Federal Wildland Fire Management Policy

The Federal Wildland Fire Management Policy was developed in 1995, updated in 2001, and again in 2009, by the National Wildfire Coordinating Group, a federal multi-agency group that establishes consistent and coordinated fire management policy across multiple federal jurisdictions. An important component of the Federal Wildland Fire Management Policy is the acknowledgement of the essential role of fire in maintaining natural ecosystems. The Federal Wildland Fire Management Policy and its implementation are founded on the following guiding principles:

- Firefighter and public safety are the first priority in every fire management activity.
- The role of wildland fire as an essential ecological process and natural change agent will be incorporated into the planning process.
- Fire management plans, programs, and activities support land and resource management plans and their implementation.
- Sound risk management is a foundation for all fire management activities.
- Fire management programs and activities are economically viable, based upon values to be protected, costs, and land and resource management objectives.
- Fire management plans and activities are based upon the best available science.
- Fire management plans and activities incorporate public health and environmental quality considerations.
- Federal, state, tribal, local, interagency, and international coordination and cooperation are essential.

Standardization of policies and procedures among federal agencies is an ongoing objective.

National Fire Plan

The National Fire Plan was a presidential directive in 2000 as a response to severe wildland fires that had burned throughout the United States. The National Fire Plan focuses on reducing fire impacts on rural communities and providing assurance for sufficient firefighting capacity in the future. The plan addresses five key points: Firefighting, Rehabilitation, Hazardous Fuels Reduction, Community Assistance, and Accountability. The plan continues to provide invaluable technical, financial, and resource guidance and support for wildland fire management across the United States. The U.S. Forest Service and the U.S. Department of the Interior are working to successfully implement the key points outlined in the plan.

3.8.2.2 State

Certified Unified Program

The California Environmental Protection Agency (CalEPA) implements and enforces a statewide hazardous materials program known as the Certified Unified Program, established by Senate Bill 1802 to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for the following environmental and emergency management programs for hazardous materials:

- Hazardous Materials Release Response Plans and Inventories (Business Plans)
- California Accidental Release Prevention Program
- Underground Storage Tank Program
- Aboveground Petroleum Storage Act Requirements for Spill Prevention, Control, and Countermeasure Plans

- Hazardous Waste Generator and On-Site Hazardous Waste Treatment Programs
- California Uniform Fire Code, Hazardous Materials Management Plans, and Hazardous Material Inventory Statements

CalEPA certifies local government agencies as Certified Unified Program Agencies (CUPAs) to implement hazardous waste and materials standards. The Merced County Department of Public Health, Division of Environmental Health, is designated as the local CUPA in Merced County.

California Hazardous Waste Control Law

California Health and Safety Code Division 20, Chapter 6.5 establishes regulations to protect the public health and the environment by assisting generators of hazardous waste in meeting the responsibility for the safe disposal of hazardous waste. The California Hazardous Waste Control Law is administered by CalEPA and pertains to administering a state hazardous waste program in lieu of the federal RCRA program, pursuant to Section 3006 of Public Law 94-580, as amended. Although the Hazardous Waste Control Law is generally more stringent than RCRA, until EPA approves the California hazardous waste control program (which is charged with regulating the generation, treatment, storage, and disposal of hazardous waste), both the state and federal laws apply in California. The Hazardous Waste Control Law lists 791 chemicals and approximately 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal, and transportation; and identifies some wastes that cannot be disposed of in landfills.

California Accidental Release Prevention Program

Similar to the Federal Risk Management Program, the California Accidental Release Prevention Program includes additional state requirements and an additional list of regulated substances and thresholds. The regulations of the program are contained in California Code of Regulations, Title 19, Division 2, Chapter 4.5. The intent of the California Accidental Release Prevention Program is to provide first responders with basic information necessary to prevent or mitigate damage to public health, safety, and the environment from the release or threatened release of hazardous materials.

California Department of Toxic Substances Control and California Highway Patrol Hazard Transportation Program

The DTSC administers the transportation of hazardous materials throughout the state. Regulations applicable to the transportation of hazardous waste include Title 22, Division 4.5, Chapter 13, and Chapter 29 of the California Code of Regulations, as well as Division 20, Chapter 6.5, Articles 6.5, 6.6, and 13 of the California Health and Safety Code. The DTSC requires that drivers transporting hazardous wastes obtain a certificate of driver training that shows the driver has met the minimum requirements concerning the transport of hazardous materials, including proper labeling and marking procedures, loading/handling processes, incident reporting and emergency procedures, and appropriate driving and parking rules. The California Highway Patrol (CHP) also requires shippers and carriers to complete hazardous materials employee training before transporting hazardous materials.

California Department of Transportation/California Highway Patrol

Under Title 13 of the California Code of Regulations, Division 2, Chapter 6, California regulates the transportation of hazardous waste originating or passing through the state. The CHP and the California Department of Transportation (Caltrans) have primary responsibility for enforcing federal and state regulations and responding

to hazardous materials transportation emergencies. CHP enforces materials and hazardous waste labeling and packing regulations that prevent leakage and spills of material in transit and provides detailed information to cleanup crews in the event of an incident. Vehicle and equipment inspection, shipment preparation, container identification, and shipping documentation are all part of the responsibility of CHP. CHP conducts regular inspections of licensed transporters to ensure regulatory compliance. Caltrans has emergency chemical spill identification teams at locations throughout the state. Hazardous waste must be regularly removed from generating sites by licensed hazardous waste transporters. Transported materials must be accompanied by hazardous waste manifests.

California Health and Safety Code

The handling and storage of hazardous materials is regulated by Division 20, Chapter 6.95 of the California Health and Safety Code. Under Sections 25500–25543.3, facilities handling hazardous materials are required to prepare a Hazardous Materials Business Plan, which contain basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of in the state.

Chapter 6.95 of the Health and Safety Code establishes minimum statewide standards for Hazardous Materials Business Plans. Each business shall prepare a Hazardous Materials Business Plan if that business uses, handles, or stores a hazardous material (including hazardous waste) or an extremely hazardous material in quantities greater than or equal to the following:

- 500 pounds of a solid substance
- 55 gallons of a liquid
- 200 cubic feet of compressed gas
- A hazardous compressed gas in any amount (highly toxic with a Threshold Limit Value of 10 parts per million or less)
- Extremely hazardous substances in threshold planning quantities

In addition, a that facility stores quantities of specific acutely hazardous materials above the thresholds set forth by California code is required to prepare a Risk Management Plan and California Accidental Release Plan. The Risk Management Plan and Accidental Release Plan provide information on the potential impact zone of a worst-case release and require plans and programs designed to minimize the probability of a release and mitigate potential impacts.

California Occupational Safety and Health Administration Hazard Handling Procedures

The California Occupational Safety and Health Administration (Cal/OSHA) is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA standards are generally more stringent than federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR 337–340). The regulations specify requirements for employee training, availability of safety equipment, accident prevention programs, and hazardous substance exposure warnings.

Environmental Screening Levels

Environmental Screening Levels (ESLs) provide conservative screening levels for over 100 chemicals found at sites with contaminated soil and groundwater. They are intended to help expedite the identification and evaluation of

potential environmental concerns at contaminated sites. The ESLs were developed by San Francisco Bay Regional Water Quality Control Board; however, ESLs are used throughout the state. While ESLs are not intended to establish policy or regulation, these values can be used as a conservative screening level for sites with contamination. Other agencies in California currently use the ESLs (as opposed to RSLs). In general, the ESLs could be used at any site in the State of California, provided all stakeholders agree. The ESLs are not generally used at sites where the contamination is solely related to a LUST; those sites are instead subject to the Low-Threat Underground Storage Tank Closure Policy.

California Department of Forestry and Fire Protection

CAL FIRE is tasked with reducing wildfire-related impacts and enhancing California's resources. CAL FIRE responds to all types of emergencies including wildland fires and residential/commercial structure fires. In addition, CAL FIRE is responsible for the protection of approximately 31 million acres of private land within the state and, at the local level, is responsible for inspecting defensible space around private residences. CAL FIRE is responsible for enforcing State of California fire safety codes included in the California Code of Regulations and California Public Resources Code. California Public Resources Code 4291 states generally that any person operating any structure located on brush-covered lands or land covered with flammable material is required to maintain defensible space around the structure. California Code of Regulations Title 14 Section 1254 identifies minimum clearance requirements required around utility poles. In State Responsibility Areas within the jurisdiction of CAL FIRE, the Fire Safety Inspection Program is an important tool for community outreach and enforcement of state fire codes.

CAL FIRE also inspects utility facilities and makes recommendations regarding improvements in facility design and infrastructure. Joint inspections of facilities by CAL FIRE and the utility owner are recommended by CAL FIRE so that each entity may assess the current state of the facility and successfully implement fire prevention techniques and policies. Violations of state fire codes discovered during inspections are required to be brought into compliance with the established codes. If a CAL FIRE investigation reveals that a wildfire occurred as a result of a violation of a law or negligence, the responsible party could face criminal and/or misdemeanor charges. In cases where a violation of a law or negligence has occurred, CAL FIRE has established the Civil Cost Recovery Program, which requires parties liable for wildfires to pay for wildfire-related damages.

California Fire Code

The CFC is contained within Title 24, Chapter 9 of the California Code of Regulations. Based on the International Fire Code, the CFC is created by the California Buildings Standards Commission and regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. Similar to the International Fire Code, the CFC and the California Building Code use a hazards classification system to determine the appropriate measures to incorporate to protect life and property.

California Public Resources Code

These regulations are discussed in further detail as follows:

- Public Resource Code 4290 requires minimum fire safety standards related to defensible space that are applicable to state responsibility area lands and lands classified and designated as very high fire hazard severity zones.
- Public Resource Code 4291 requires a reduction of fire hazards around buildings, requiring 100 feet of vegetation management around all buildings, and is the primary mechanism for conducting fire prevention activities on private property within CAL FIRE jurisdiction.

Fire Hazard Severity Zoning

CAL FIRE mapped FHSZs in Merced County based on fuel loading, slope, fire weather, and other relevant factors as directed by Public Resources Code Sections 4201–4204 and Government Code Sections 51175–51189. FHSZs are ranked from moderate to very high and are categorized for fire protection within a Federal Responsibility Area, State Responsibility Area, or Local Responsibility Area under the jurisdiction of a federal agency, CAL FIRE, or local agency, respectively.

California Strategic Fire Plan

The 2019 Strategic Fire Plan for California reflects CAL FIRE's focus on (1) fire prevention and suppression activities to protect lives, property, and ecosystem services; and (2) natural resource management to maintain the state's forests as a resilient carbon sink to meet California's climate change goals and to serve as important habitat for adaptation and mitigation. The Strategic Fire Plan for California provides a vision for a natural environment that is more fire resilient; buildings and infrastructure that are more fire resistant; and a society that is more aware of and responsive to the benefits and threats of wildland fire; all achieved through local, state, federal, tribal, and private partnerships (CAL FIRE 2019). The Strategic Fire Plan goals include the following:

- Identify and evaluate wildland fire hazards and recognize life, property, and natural resource assets at risk, including watershed, habitat, social and other values of functioning ecosystems. Facilitate the collaborative development and sharing of all analyses and data collection across all ownerships for consistency in type and kind.
- Promote and support local land use planning processes as they relate to: (a) protection of life, property, and natural resources from risks associated with wildland fire, and (b) individual landowner objectives and responsibilities.
- Support and participate in the collaborative development and implementation of local, county, and regional plans that address fire protection and landowner objectives.
- Increase fire prevention awareness, knowledge and actions implemented by individuals and communities to reduce human loss, property damage and impacts to natural resources from wildland fires.
- Integrate fire and fuels management practices with landowner/land manager priorities across jurisdictions.
- Determine the level of resources necessary to effectively identify, plan and implement fire prevention using adaptive management strategies.
- Determine the level of fire suppression resources necessary to protect the values and assets at risk identified during planning processes.
- Implement post-fire assessments and programs for the protection of life, property, and natural resource recovery.

3.8.2.3 Local

Certified Unified Program Agency

As previously discussed, CalEPA certifies local government agencies as CUPAs to implement hazardous waste and materials standards. The Merced County Department of Public Health, Division of Environmental Health, is designated as the local CUPA in Merced County. The Division of Environmental Health oversees six state-mandated programs in the county, including (1) Hazardous Materials Business Plan, (2) California Accidental Release Program, (3) Underground Storage Tank Program, (4) Aboveground Storage Tank Program, (5) Hazardous Waste Generator Program, and (6) Tiered Permitting Program. Businesses that are regulated under these programs are routinely inspected by the CUPA team.

Merced Vision 2030 General Plan

As required by state law, Merced County has adopted a general plan to guide land use decisions within the county. The general plan provides goals, policies, standards, and implementation programs to guide the physical development of a county. At a minimum, the general plan must address the topics of land use, transportation, housing, conservation, open space, noise, and safety. The Merced Vision 2030 General Plan (Merced County General Plan), adopted in 2013, has established the year 2030 as the plan's time horizon. The Health and Safety Element of the Merced County General Plan includes goals and policies related to fire hazards, airport safety, and hazardous materials/waste. The following policies would apply to the Modified Project (Merced County 2013):

Health and Safety Element

- **Policy HS-3.7**: Road Fire Buffers. Encourage fire buffers along heavily traveled roads within high and extreme hazard zones by thinning, disking, or controlled burning. Plan parks, golf courses, utility corridors, roads, and open space so they can serve a secondary function as a fuel break.
- **Policy HS-3.13:** Uniform Fire Code. Require the Uniform Fire Code to be used as a guide for project-level prevention and suppression activities, including site access, water supply, fire protection systems, and the use of fire-resistant building materials.
- **Policy HS-4.1:** Airport Land Use Compatibility Plan. Require that development around public use airports be consistent with the safety policies and land use compatibility guidelines contained in the Merced County Airport Land Use Commission's adopted Airport Land Use Compatibility Plan and ensure that development near private airstrips addresses land use compatibility issues and complies with Federal Aviation Administration regulations.
- **Policy HS-4.2:** Compliance with FAA Regulations. Require that development within the airport approach and departure zones is in compliance with Part 77 of the Federal Aviation Administration Regulations (FAA regulations that address objects affecting navigable airspace).
- **Policy HS-5.1:** Compliance with Safety Standards. Require that hazardous materials are used, stored, transported, and disposed of in a safe manner, in compliance with local, State, and Federal safety standards.
- **Policy HS-5.2:** Hazardous Material and Waste Transport. Coordinate with the California Highway Patrol to establish procedures for the movement of hazardous wastes and explosives within the County.
- **Policy HS-5.3:** Incompatible Land Uses. Prohibit incompatible land uses near properties that produce or store hazardous waste.
- **Policy HS-5.4:** Contamination Prevention. Require new development and redevelopment proposals that have suspected or historic contamination to address hazards concerns and protect soils, surface water, and groundwater from hazardous materials contamination by conducting Phase I Environmental Site Assessments (ESAs) according to the American Society for Testing and Materials (ASTM) standards and applicable Department of Toxic Substances Control (DTSC) remediation guidelines. Also, complete additional Phase II Environmental Site Assessments and soil investigations, and any identified or needed remediation when preliminary studies determine such studies are recommended.

3.8.3 Thresholds of Significance

The following significance criteria from the 2019 EIS/EIR are used for the purposes of analysis in this SEIR. These criteria, which have not changed from the 2019 EIS/EIR, are identified in Chapter 13, Hazards and Hazardous Materials, of the 2019 EIS/EIR. A significant impact related to hazards and hazardous materials would occur if the Modified 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. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as result, would it create a significant hazard to the public or the environment.
4. Result in a safety hazard for people residing or working in the Modified Project area 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.
5. Result in a safety hazard for people residing within the Modified Project area for a project within the vicinity of a private airstrip.
6. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
7. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

3.8.4 Impacts Analysis

Threshold 1

Would the Modified Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

2019 EIS/EIR Impact Determination	Modified Project Impact Determination	New Significant Increase in Impact Severity?
Less than Significant	Less than Significant	No

Campground Construction and Day Use Area Improvements

Hazardous materials that may be used during grading and construction for the proposed campground and improvements to the San Luis Creek Day Use Area include gasoline, diesel fuel, oil, lubricants, grease, solvents, and paints. These materials would be used and stored in designated construction staging areas and would be used, transported, handled, and stored in accordance with all applicable federal, state, and local laws and regulations, which are intended to minimize health risk to the public associated with hazardous materials. The use of these

materials for their intended purpose would not pose a significant risk to the public or environment. In addition, as discussed in Section 3.1, Water Quality and Groundwater, a National Pollutant Discharge Elimination System–mandated Stormwater Pollution Prevention Plan would be implemented during grading and construction, including best management practices that would minimize incidental spills of petroleum products and hazardous materials and prevent off-site migration in the event such incidental spills occur. Best management practices would include equipment fueling and maintenance in designated areas not in proximity to the reservoir, use of spill containment booms and absorbent pads in areas of fueling, and maintenance of equipment such that leaks would not occur. Wastes, both hazardous and non-hazardous, accumulated during grading and construction for the proposed campground and improvements to the San Luis Creek Day Use Area, would be handled, documented, and disposed of in accordance with federal, state, and local laws and regulations. Similarly, any small quantities (generally less than 5 gallons) of petroleum products and hazardous materials used for maintenance during campground and day use area operations, such as pesticides, herbicides, gasoline, oil, and grease, would be handled, documented, and disposed of in accordance with federal, state, and local laws and regulations. As a result, this element of the Modified Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Impacts would be **less than significant**.

Changes in Borrow Area Location

In addition to Borrow Area 6 and the Basalt Hill Borrow Area, which were evaluated as part of the Approved Project, Borrow Areas 12 and 14 would also be used as borrow sites under the Modified Project. Borrow Areas 12 and 14 are within the overall construction footprint identified by the Approved Project, but were identified in that document and analyzed as anticipated contractor staging areas. Blasting and soil/rock excavations at all borrow sites would require heavy equipment, which would use petroleum products and small quantities of hazardous materials. The potential for hazardous materials spills impacts at these sites would be like that described for campground/day use area grading, construction, and improvement. For the reasons described above, this element of the Modified Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Impacts would be **less than significant**.

Minor Additions to Contractor Work Area

Contractor work areas would be used for soil stockpiling and overnight parking, fueling, and maintenance of heavy equipment. The potential for hazardous materials spills impacts at these sites would be like that described for campground construction and day use area improvements. For the reasons described above, this element of the Modified Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Impacts would be **less than significant**.

Additional Construction Assumptions

Stability berms would be constructed along the downstream side of the dam to raise the dam crest 12 feet and increase the reservoir's freeboard, or the distance between the water surface and the dam crest. Construction of these stability berms would initially require excavations so that the berm would be keyed into the underlying bedrock. Dewatering would be required in these excavations occurring at the base of the dam. Excavations and dewatering at the base of the dam would require the use of heavy equipment. The potential for hazardous materials spills impacts at these excavation and dewatering sites would be like that described for campground construction and day use area improvements. Dewatering is anticipated to entail installation of temporary deeper wells along with shallower well points that would be installed around each work area requiring dewatering. Water removed from the excavation during this period would be pumped into temporary settling ponds or portable tanks to allow

sediment to drop out and meet permit water quality standards before being discharged into the reservoir or forebay. Dewatering would be subject to permitting approval by the CVRWQCB. As a result, any potentially contaminated groundwater in dewatering wells associated with incidental spills from heavy equipment would not be discharged into the reservoir or forebay. As a result, this element of the Modified Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. These additional construction assumptions, which were not included in the Approved Project, would result in **less-than-significant** impacts related to Modified Project hazardous materials.

Cumulative Impacts

Hazardous materials, including gasoline, diesel fuel, oil, lubricants, grease, solvents, and paints, would be used during grading, construction, and operation at each of the cumulative project sites. These materials would be used and stored in designated construction staging areas and maintenance facilities and would be used, transported, handled, and stored in accordance with all applicable federal, state, and local laws and regulations, which are intended to minimize health risk to the public associated with hazardous materials. The use of these materials for their intended purpose would not pose a significant risk to the public or environment. In addition, as discussed in Section 3.1, a National Pollutant Discharge Elimination System–mandated Stormwater Pollution Prevention Plan would be implemented during grading and construction, including best management practices that would minimize incidental spills of petroleum products and hazardous materials and prevent off-site migration in the event such incidental spills occur. Similar to the Modified Project, potential impacts related to incidental spills of hazardous materials would be isolated to each cumulative project site. Although the B.F. Sisk Dam Raise and Reservoir Expansion Project (reservoir expansion project) would generally be located in the same location as the Modified Project, potential incidental spills of hazardous materials would be limited to isolated staging areas, which would vary throughout the construction period for the Modified Project and the reservoir expansion project. As a result, the Modified Project, in combination with cumulative projects, would not result in cumulatively considerable impacts with respect to creation of significant hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials. Cumulative impacts would be **less than significant**.

Comparison to 2019 EIS/EIR

The additional project components analyzed above would result in less-than-significant impacts and therefore impacts of the Modified Project would not result in a significant increase in the severity of impacts as determined in the 2019 EIS/EIR. Impacts of the Modified Project would remain less than significant.

Threshold 2

Would the Modified Project 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?

2019 EIS/EIR Impact Determination	Modified Project Impact Determination	New Significant Increase in Impact Severity?
Less than Significant with Mitigation Incorporated	Less than Significant with Mitigation Incorporated	No

Campground Construction and Day Use Area Improvements

A search was completed for oil drilling features and hazardous pipelines within the Modified Project area that could impact the proposed areas of ground disturbance. Based on this search, hazardous liquid pipelines are located approximately 0.8 miles and 1.4 miles east of the proposed campground area; a gas transmission line is located approximately 1.5 miles east of the proposed campground; and an abandoned, dry oil well is located approximately 3.0 miles southeast of the campground (Figure 3.8-1A). Similarly, hazardous liquid pipelines are located approximately 0.8 miles and 1.5 mile northeast of the proposed San Luis Creek Day Use Area improvements; a gas transmission line is located approximately 1.6 mile northeast of the day use area; and the abandoned, dry oil well is located approximately 2.3 miles southeast of the area. Other components of the Modified Project are located at greater distances than those described above. Based on these distances, there is no potential for an accident involving the release of hazardous materials into the environment during construction or operations. As a result, this element of the Modified Project would not 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. **No impacts** would occur.

Changes in Borrow Area Location

In addition to Borrow Area 6 and the Basalt Hill Borrow Area, the Modified Project includes materials extraction for dam construction from two more borrow areas, including Borrow Areas 12 and 14. The hazardous liquid pipelines described above are located approximately 1.3 miles and 2.0 miles northeast of Borrow Areas 12 and 14, at the closest point, and the gas transmission line is located approximately 2.0 miles northeast of these borrow areas, at the closest point (Figure 3.8-1A and Figure 3.8-1B). In addition, the abandoned oil well described above is located approximately 1.3 miles northeast of Borrow Areas 12 and 14, at the closest point. Based on these distances, there is no potential for an accident involving the release of hazardous materials into the environment. As a result, this element of the Modified Project would not 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. **No impacts** would occur.

Minor Additions to Contractor Work Area

The hazardous liquid pipelines described above are located 1.7 miles northeast of the additional staging and stockpiling areas, at the closest point (Figure 3.8-1A and Figure 3.8-1B). Similarly, the gas transmission line is located approximately 2.2 miles northeast of these areas, at the closest point, and the abandoned oil well described above is located approximately 2.2 miles east of these staging and stockpiling areas, at the closest point. Based on these distances, there is no potential for an accident involving the release of hazardous materials into the environment. As a result, this element of the Modified Project would not 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. **No impacts** would occur.

Additional Construction Assumptions

Stability berms would be constructed along the downstream side of the dam to raise the dam crest 12 feet and increase the reservoir's freeboard, or the distance between the water surface and the dam crest. Construction of these stability berms would initially require excavations so that the berm would be keyed into the underlying bedrock. Dewatering would be required in these excavations occurring at the base of the dam.

The hazardous liquid pipelines described above are located 2.6 miles northeast of the proposed stability berms, at the closest point, and the gas transmission line is located approximately 3.4 miles northeast of the proposed berm. In addition, the abandoned oil well described above is located approximately 2.8 miles east of the proposed stability berm. As a result, this element of the Modified Project would not 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. These additional construction assumptions, which were not included in the Approved Project, would result in **no impacts** related to Modified Project hazardous materials.

Cumulative Impacts

Hazardous liquid/gas pipelines and oil/gas wells could potentially be located in the vicinity of cumulative projects sites, resulting in the potential for accident involving the release of hazardous materials into the environment during grading, excavations, and operations. However, potential impacts related to accidents would be isolated to each cumulative project site. Although reservoir expansion project would generally be located in the same location as the Modified Project, the Approved Project and the Modified Project would occur before initiation of this cumulative project, resulting in no overlapping construction activities. In addition, as described above, no hazardous liquid/gas pipelines or oil/gas wells are located in the vicinity of proposed borrow areas or dam stabilization/dam raising activities. As a result, the Modified Project, in combination with cumulative projects, would not result in cumulatively considerable impacts with respect to potential creation of 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. **No cumulative impacts** would occur.

Comparison to 2019 EIS/EIR

The additional project components analyzed above would result in no impacts and therefore impacts of the Modified Project would not result in a significant increase in the severity of impacts or change the impact determination made by the 2019 EIS/EIR. The 2019 EIS/EIR identified potentially significant impacts and found that impacts would be less than significant with mitigation. Impacts of the Modified Project would remain less than significant with mitigation identified in the 2019 EIS/EIR.

Threshold 3

Would the Modified Project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

2019 EIS/EIR Impact Determination	Modified Project Impact Determination	New Significant Increase in Impact Severity?
Less than Significant with Mitigation Incorporated	Less than Significant with Mitigation Incorporated	No

Campground Construction and Day Use Area Improvements

San Luis Reservoir State Recreation Area Maintenance Facility

An active LUST site is located immediately south of the maintenance shed on Gonzaga Road. Leaking gasoline and waste oil underground storage tanks resulted in petroleum hydrocarbon concentrations in soil and groundwater beneath the site, including gasoline free product floating on groundwater. Soil and groundwater remediation were completed from 1999 to 2009. Additional site assessment is currently being evaluated for this site to determine the extent of groundwater contamination. The 2019 EIS/EIR included an impact determination of less than significant with mitigation, as this site is located approximately 830 feet from proposed permanent downstream fill impacts for dam construction. However, this LUST site is located approximately 2.7 miles south of the proposed campground and approximately 1.1 miles south of the existing San Luis Creek Day Use Area (Figure 3.8-1A). Based on these distances, the potential for exposure of contaminated soil and/or groundwater during construction and operation of the proposed campground and the San Luis Creek Day Use Area does not exist.

A closed Geotracker site is located at the same maintenance facility described above. Soil samples were collected in 2013, to a depth of 15 feet, in the vicinity of a vehicle wash discharge area and analyzed for total petroleum hydrocarbons, volatile organic compounds (including solvents and fuel oxygenates), and metals. No significant concentrations of these constituents were detected; therefore, the case was closed with respect to regulatory compliance in November 2013. Therefore, the potential for exposure of contaminated soil and/or groundwater during construction and operation of the proposed campground and the San Luis Creek Day Use Area does not exist. As a result, this element of the Modified Project would not create a significant hazard to the public or the environment and **no impacts** would occur.

Forebay Chevron Station

An active LUST site is located near the intersection of SR-152 and SR-33, at 29860 Gonzaga Road. Leaking gasoline underground storage tanks resulted in petroleum hydrocarbon concentrations in soil and groundwater beneath the site. As of 2018, the lateral extent of soil and groundwater contamination has not been defined and the CVRWQCB has requested that an interim remedial action plan be prepared. The groundwater flow direction is currently unknown, but based on the local topography, groundwater likely flows toward the north, toward O'Neill Forebay and Borrow Area 6 of the Approved Project. This LUST site is located approximately 3.8 miles southeast of the proposed campground and approximately 2.7 miles southeast of the existing San Luis Creek Day Use Area (Figure 3.8-1A). Based on these distances, the potential for exposure of contaminated soil and/or groundwater during construction and operation of the proposed campground and the San Luis Creek Day Use Area does not exist. As a result, this element of the Modified Project would not create a significant hazard to the public or the environment and **no impacts** would occur.

Romero Ranch

A closed EnviroStor site is located at the northwest intersection of SR-152 and SR-33. Residues of pesticides, including DDT and toxaphene, have been found in soils in the area around a cattle dip tank and contaminated soils have been removed. The site was included in the DTSC Voluntary Cleanup Program and was closed with respect to regulatory oversight in December 1998, indicating that no further action is required with respect to site assessment and/or remediation. This site is located approximately 3.5 miles southeast of the proposed campground and approximately 2.5 miles southeast of the existing San Luis Creek Day Use Area (Figure 3.8-1A). Based on this distance, there is no potential for exposure of contaminated soil and/or groundwater during construction and operation of the proposed campground and the San Luis Creek Day Use Area. As a result, this element of the Modified Project would not create a significant hazard to the public or the environment and **no impacts** would occur.

Changes in Borrow Area Location

The active LUST site and closed Geotracker site at the maintenance facility described above are located approximately 3,000 feet north of Borrow Areas 12 and 14, at the closest point (Figure 3.8-1B). In addition, the active LUST site at the Forebay Chevron station described above is located approximately 2.0 miles northeast of Borrow Areas 12 and 14, at the closest point. Based on these distances, the potential for exposure of contaminated soil while excavating soil and rock at Borrow Areas 12 and 14 does not exist.

The closed EnviroStor site described above is located on a ranch, approximately 2.0 miles northeast of Borrow Areas 12 and 14. This site was included in the DTSC Voluntary Cleanup Program and was closed with respect to regulatory oversight in December 1998, indicating that no further action is required with respect to site assessment and/or remediation. Therefore, the potential for exposure of contaminated soil during excavations at Borrow Areas 12 and 14 does not exist. This element of the Modified Project would not create a significant hazard to the public or the environment and **no impacts** would occur.

Minor Additions to Contractor Work Area

The active LUST site and closed Geotracker site at the maintenance facility described above are located approximately 1.0 mile southeast of an additional staging and stockpiling area adjacent to the Gianelli Pumping-Generating Plant (Figure 3.8-1A) and 1.6 miles northeast of an additional staging and stockpiling area adjacent to the southern portion of the dam (Figure 3.8-1B). The active LUST site at the Forebay Chevron station described above is located approximately 3.4 miles southeast and 2.4 miles northeast of these staging and stockpiling areas, respectively. In addition, the closed Envirostor site at Romero Ranch is located approximately 3.3 miles southeast 2.3 miles northeast of these staging areas, respectively. Based on these distances, the potential for exposure of contaminated soil and/or groundwater during soil stockpiling and equipment staging does not exist. As a result, this element of the Modified Project would not create a significant hazard to the public or the environment and **no impacts** would occur.

Additional Construction Assumptions

The active LUST site and closed Geotracker site at the maintenance facility described above are located approximately 3,500 feet east of the closest proposed stability berm (Figure 3.8-1A and Figure 3.8-1B). In addition, this Geotracker site has been closed with respect to regulatory compliance, thus minimizing the potential for soil and/or groundwater contamination to be present. The active LUST site at the Forebay Chevron station is located 2.6 miles east of the closest stability berm. In addition, the closed Envirostor site at Romero Ranch is located approximately 2.5 miles east of the proposed stability berms, at the closest point. Based on these distances, there is no potential for exposure of contaminated soil and/or groundwater during stability berm construction (including dewatering).

Dewatering is anticipated to entail installation of temporary deeper wells along with shallower well points that would be installed around each work area requiring dewatering. Water removed from the excavation during this period would be pumped into temporary settling ponds or portable tanks to allow sediment to drop out and meet permit water quality standards before being discharged into the reservoir or forebay. Dewatering would be subject to permitting approval by the CVRWQCB. As a result, any potentially contaminated groundwater in dewatering wells would not be discharged into the reservoir or forebay. As a result, this element of the Modified Project would not create a significant hazard to the public or the environment. These additional construction assumptions, which were not included in the Approved Project, would result in **less-than-significant** impacts related to Modified Project hazardous materials.

Cumulative Impacts

Areas of soil and/or groundwater contamination may be present in the vicinity of cumulative project sites. However, potential impacts associated with such contamination would be isolated to each cumulative site. In the event it is suspected that contaminated soil would be present during cumulative project grading and excavations, a soil contingency would likely be in-place in order to properly address such contamination, including soil characterization, off-site transport, and disposal in an appropriate (i.e., for the type/level of contamination) waste disposal facility. In the absence of such a contingency plan, contaminated materials would similarly be required by federal, state, and/or local regulations to be disposed off-site in an approved waste disposal facility. Similarly, in the event that contaminated groundwater is encountered during excavations, dewatering would be required in accordance with a National Pollutant Discharge Elimination System dewatering permit, which would be issued by the CVRWQCB. Although the reservoir expansion project would generally be located in the same location as the Modified Project, the Approved Project and the Modified Project would occur before initiation of this cumulative project, resulting in no overlapping construction activities and therefore no cumulative impact would occur associated with encountering contaminated soil and/or groundwater. Following construction, Modified Project operations would result in no considerable contribution associated with hazard to the public from hazardous materials sites or soil or groundwater contamination. As a result, the Modified Project, in combination with cumulative projects, would not result in cumulatively considerable impacts with respect to creating a significant hazard to the public or the environment as a result of nearby hazardous materials sites. **No cumulative impacts** would occur.

Comparison to 2019 EIS/EIR

The additional project components analyzed above would result in less-than-significant or no impacts, and therefore impacts of the Modified Project would not result in a significant increase in the severity of impacts or change the impact determination made by the 2019 EIS/EIR. The 2019 EIS/EIR identified potentially significant impacts and found that impacts would be less than significant with mitigation. Impacts of the Modified Project would remain less than significant with mitigation incorporated.

Threshold 4

Would the Modified Project result in a safety hazard for people residing or working in the Modified Project area 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?

2019 EIS/EIR Impact Determination	Modified Project Impact Determination	New Significant Increase in Impact Severity?
Less than Significant with Mitigation Incorporated	Less than Significant	No

Campground Construction and Day Use Area Improvements

The proposed campground area and the existing San Luis Creek Day Use Area are not located within an Airport Land Use Plan, and are not located within 2 miles of a public use airport. The 2019 EIS/EIR associated with the Approved Project indicated that the San Luis Reservoir Seaplane Base allows water landings on the reservoir and that approximately 25 aircraft operations per year occur at the reservoir. However, the seaplane base was removed from the reservoir in 2015. The reservoir can only be used for emergency landings (Heberling, pers. comm. 2020).

As a result, this element of the Modified Project would not result in a safety hazard for people residing or working in the Modified Project area and **no impacts** would occur. Mitigation Measure HAZ-3 identified in the 2019 EIS/EIR, which requires coordination with the seaplane base, is no longer required.

Changes in Borrow Area Location

Borrow Areas 12 and 14 are not located within an Airport Land Use Plan, and are not located within 2 miles of a public use airport. As previously discussed, the seaplane base was removed from the reservoir in 2015. As a result, this element of the Modified Project would not result in a safety hazard for people residing or working in the Modified Project area and **no impacts** would occur. Mitigation Measure HAZ-3 identified in the 2019 EIS/EIR, which requires coordination with the seaplane base, is no longer required

Minor Additions to Contractor Work Area

Additional staging and stockpiling areas would not be located within an Airport Land Use Plan, and would not be located within 2 miles of a public use airport. As previously discussed, the seaplane base was removed from the reservoir in 2015. As a result, this element of the Modified Project would not result in a safety hazard for people residing or working in the Modified Project area and **no impacts** would occur. Mitigation Measure HAZ-3 identified in the 2019 EIS/EIR, which requires coordination with the seaplane base, is no longer required

Additional Construction Assumptions

Additional construction assumptions include changes to the construction schedule, equipment and personnel specifications, and dewatering specifications for proposed excavations at the base of the dam. These Modified Project components would have no relevance to aircraft safety. As a result, this element of the Modified Project would not result in a safety hazard for people residing or working in the Modified Project area and no impacts would occur. Mitigation Measure HAZ-3 identified in the 2019 EIS/EIR, which requires coordination with the seaplane base, is no longer required.

Cumulative Impacts

Portions of the San Luis Transmission Project, which would be located in Alameda, San Joaquin, Stanislaus, and Merced Counties, and the California High-Speed Rail Project, which would include a 35-mile corridor from Merced to Fresno, may be located within an airport land use plan or within 2 miles of a public airport or public use airport. Potential safety hazard impacts would be isolated to each cumulative project site, with no overlapping aircraft safety hazards. A portion of the San Luis Transmission Project, as well as the San Luis Reservoir SRA Resource Management Plan/General Plan (San Luis Reservoir SRA RMP/GP), the San Luis Solar Project, and reservoir expansion project would be located in the vicinity of the Modified Project. None of these projects are located within an airport land use plan or within 2 miles of a public airport. As a result, the Modified Project, in combination with cumulative projects, would not result in cumulatively considerable safety hazard impacts related to people residing or working in the Modified Project area. Cumulative impacts would be **less than significant**.

Comparison to 2019 EIS/EIR

The additional project components analyzed above would result in less-than-significant or no impacts, and therefore impacts of the Modified Project would not result in a significant increase in the severity of impacts as determined in the 2019 EIS/EIR. For reasons described above, impacts of the Modified Project would be reduced and would no longer require mitigation (see Section 3.8.5).

Threshold 5

Would the Modified Project result in a safety hazard for people residing within the Modified Project area for a project within the vicinity of a private airstrip?

2019 EIS/EIR Impact Determination	Modified Project Impact Determination	New Significant Increase in Impact Severity?
Less than Significant with Mitigation Incorporated	Less than Significant	No

Campground Construction and Day Use Area Improvements

The proposed campground area and the existing San Luis Creek Day Use Area are not located in the vicinity of a private airstrip. As previously discussed, the seaplane base was removed from the reservoir in 2015. As a result, this element of the Modified Project would not result in a safety hazard for people residing in the Modified Project area and **no impacts** would occur. Mitigation Measure HAZ-3 identified in the 2019 EIS/EIR, which requires coordination with the seaplane base, is no longer required

Changes in Borrow Area Location

Borrow Areas 12 and 14 are not located in the vicinity of a private airstrip. As previously discussed, the seaplane base was removed from the reservoir in 2015. As a result, this element of the Modified Project would not result in a safety hazard for people residing in the Modified Project area and **no impacts** would occur. Mitigation Measure HAZ-3 identified in the 2019 EIS/EIR, which requires coordination with the seaplane base, is no longer required

Minor Additions to Contractor Work Area

Additional contractor work areas would not be located in the vicinity of a private airstrip. As previously discussed, the seaplane base was removed from the reservoir in 2015. As a result, this element of the Modified Project would not result in a safety hazard for people residing in the Modified Project area and **no impacts** would occur. Mitigation Measure HAZ-3 identified in the 2019 EIS/EIR, which requires coordination with the seaplane base, is no longer required

Additional Construction Assumptions

Additional construction assumptions include changes to the construction schedule, equipment and personnel specifications, and dewatering specifications for proposed excavations at the base of the dam. These Modified Project components would have no relevance to aircraft safety. As a result, this element of the Modified Project would not result in a safety hazard for people residing in the Modified Project area and **no impacts** would occur. Mitigation Measure HAZ-3 identified in the 2019 EIS/EIR, which requires coordination with the seaplane base, is no longer required

Cumulative Impacts

Portions of the San Luis Transmission Project, which would be located in Alameda, San Joaquin, Stanislaus, and Merced Counties, and the California High-Speed Rail Project, which would include a 35-mile corridor from Merced to Fresno, may be located in the vicinity of the a private airstrip. Potential safety hazard impacts would be isolated to each cumulative project site, with no overlapping aircraft safety hazards. A portion of the San Luis Transmission

Project, as well as the San Luis Reservoir SRA RMP/GP, the San Luis Solar Project, and the reservoir expansion project would be located in the vicinity of the Modified Project. None of these projects are located within an airport land use plan or within 2 miles of a public airport. As a result, the Modified Project, in combination with cumulative projects, would not result in cumulatively considerable safety hazard impacts related to people residing in the Modified Project area. Cumulative impacts would be **less than significant**.

Comparison to 2019 EIS/EIR

The additional project components analyzed above would result in less-than-significant or no impacts, and therefore impacts of the Modified Project would not result in a significant increase in the severity of impacts as determined in the 2019 EIS/EIR. For reasons described above, impacts of the Modified Project would be reduced and would no longer require mitigation (see Section 3.8.5).

Threshold 6

Would the Modified Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

2019 EIS/EIR Impact Determination	Modified Project Impact Determination	New Significant Increase in Impact Severity?
Less than Significant with Mitigation Incorporated	Less than Significant with Mitigation Incorporated	No

Campground Construction and Day Use Area Improvements

Proposed campground and day use area operations would have no impact with respect to impairment of implementation of or physically interfering with an adopted emergency response plan or emergency evacuation plan. However, the roads within San Luis Creek State Park, SR-152, and Basalt Road would be the main access roads for trucks, equipment, and construction worker access to San Luis Creek State Park during grading and construction. These roads would similarly be the main evacuation route in case of an emergency. Grading and construction associated with the proposed campground and existing day use area would not require road or lane closures. However, excessive construction traffic on these roads could temporarily interfere with an emergency response plan or emergency evacuation plan for the State Responsibility Area. Potential conflicts with emergency vehicles in the form of traffic slowdowns or temporary roadway blockages during construction would be a significant impact, in that this element of the Modified Project would potentially impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

However, implementation of **Mitigation Measure TR-1 (same as TR-1 in the 2019 EIS/EIR)** would reduce impacts to less than significant (refer to Section 3.7.5 for full text of mitigation measure). Mitigation Measure TR-1 would require development of a temporary traffic control plan, to be implemented on SR-152, Basalt Road, and the Romero Visitor Center access road. The traffic control plan, which would be submitted to Caltrans for review and approval, would reduce severity of traffic during grading and construction for the campground and day use area improvements. As a result, potentially significant traffic impacts associated with proposed campground construction and existing day use area improvements would be reduced, which in turn would avoid impairment or interference with an adopted emergency response plan or emergency evacuation plan. Therefore, impacts from the Modified Project would be **less than significant with mitigation incorporated**.

Changes in Borrow Area Location

SR-152 and Basalt Road would be the main access roads for trucks, equipment, and construction worker access to Borrow Areas 12 and 14. Similarly, these roads would be the main evacuation route in case of an emergency. Borrow excavation activities would not require road or lane closures. However, similar to that described for the proposed campground and existing day use area, potential conflicts with emergency vehicles in the form of traffic slowdowns or temporary roadway blockages during the construction period would be a significant impact, in that this element of the Modified Project would potentially impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. However, as described above for the proposed campground and day use area improvements, Mitigation Measure TR-1 would be implemented; therefore, impacts from the Modified Project would be **less than significant with mitigation incorporated**.

Minor Additions to Contractor Work Area

Gonzaga Road and Basalt Road would be the main access roads for trucks, equipment, and construction worker access to the staging and stockpiling areas. Similarly, these roads would be the main evacuation routes in case of an emergency. Use of these staging and stockpiling areas would not require road or lane closures. However, similar to that described for the proposed campground and existing day use area, potential conflicts with emergency vehicles in the form of traffic slowdowns or temporary roadway blockages during the construction period would be a significant impact, in that this element of the Modified Project would potentially impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. However, as described above for the proposed campground and day use area improvements, Mitigation Measure TR-1 would be implemented; therefore, impacts from the Modified Project would be **less than significant with mitigation incorporated**.

Additional Construction Assumptions

Additional construction assumptions include changes to the construction schedule, equipment and personnel specifications, and dewatering specifications for proposed excavations at the base of the dam. These Modified Project components would have no relevance to emergency response plans or evacuation plans. Therefore, this element of the Modified Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. These additional construction assumptions, which were not included in the Approved Project, would result in **no impacts** related to Modified Project safety hazards.

Cumulative Impacts

Modified Project operations and cumulative project operations would have no impact with respect to impairment of implementation of or physically interfering with an adopted emergency response plan or emergency evacuation plan. However, in the event that the San Luis Reservoir SRA RMP/GP, the San Luis Transmission Project, and the San Luis Solar Project are constructed at the same time, construction traffic could conflict with emergency response and evacuation plans for the State Responsibility Area. Such a conflict would be a potentially significant cumulative impact. As previously discussed, no road closures would occur in association with the Modified Project. However, excessive construction traffic could result in a slowdown in traffic and impede adopted emergency response plan or emergency evacuation plan. As a result, the Modified Project could contribute to this potentially significant impact. However, as described above for the proposed campground and day use area improvements, Mitigation Measure TR-1 would be implemented; therefore, impacts from the Modified Project would be **less than significant with mitigation incorporated**.

Comparison to 2019 EIS/EIR

The additional project components analyzed above would result in less-than-significant impacts with mitigation incorporated and therefore impacts of the Modified Project would not result in a significant increase in the severity of impacts as determined in the 2019 EIS/EIR. Impacts of the Modified Project would remain less than significant with mitigation incorporated (see Section 3.8.5).

Threshold 7

Would the Modified Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

2019 EIS/EIR Impact Determination	Modified Project Impact Determination	New Significant Increase in Impact Severity?
Less than Significant with Mitigation Incorporated	Less than Significant with Mitigation Incorporated	No

Campground Construction and Day Use Area Improvements

The proposed campground area and the existing San Luis Creek Day Use Area are located within Moderate FHSZs, though mapped within or adjacent to areas ranked as having high or very high fire threat. Several historic wildfires have occurred in this area, including seven fires that have burned within or adjacent to the proposed campground area and the San Luis Creek Day Use Area (two fires, the SR-152 Fire (1998) and the Romero Fire (2000) each burned the entirety of the San Luis Creek Day Use Area). During construction, heat or sparks from equipment and vehicles, as well as the use of flammable materials, have the potential to ignite adjacent vegetation and start a fire, especially during weather events that include low humidity and high wind speeds. The following construction activities/equipment would have the potential to generate heat or sparks that could result in wildfire ignition:

- Earthmoving and excavating equipment – heated exhausts or sparks may result in ignition
- Chainsaws and other small gas-powered equipment/tools – may result in vegetation ignition from overheating, spark, fuel leak
- Cranes, tractors, forklifts, trucks, and vehicles – heated exhaust in contact with vegetation may result in ignition
- Welders – open heat source may result in metallic sparks coming into contact with vegetation
- Woodchippers – flammable fuels and hydraulic fluid may overheat and spray onto vegetation with a hose failure

The potential risk of wildfire ignition and spread associated with construction activities for the proposed campground and improvements at the San Luis Creek Day Use Area can be managed and pre-planned to reduce the potential for vegetation ignition. In addition, pre-planning and personnel fire awareness and suppression training not only results in lower probability of ignition, but also in higher probability of fire control and extinguishment in its incipient stages. Data indicate that 95% of all wildfire ignitions are controlled during initial attack (Smalley 2008).

Mitigation Measures HAZ-1 and **HAZ-4 (same as HAZ-1 and HAZ-4 in the 2019 EIS/EIR, respectively**), which require preparation of a Fire Prevention Plan by the construction contractor, education of construction personnel regarding wildfire prevention, the use of spark arrestors, and restrictions on smoking and campfires, would be implemented during construction of the Modified Project. With implementation of these measures, construction-related impacts for the proposed campground and the San Luis Creek Day Use Area improvements would be less than significant.

During operations, the improvements to the San Luis Creek Day Use Area (additional boat launch lane and boarding float, fish-cleaning station, and six restroom stalls) would not include uses that result in an increase in potential wildfire ignitions as compared with existing conditions and would be considered less than significant for the operations period. During operations of the campground, the potential for wildfire ignitions would be increased as compared with existing conditions. Sources of potential wildfire ignitions include campfires (at the campfire center or at fire rings at individual campsites), barbecues, smoking, vehicles, and the increase in human presence in an area that is currently an undeveloped grassland area. Additionally, maintenance of the campground would necessitate the use of powered tools and equipment periodically, all of which have the potential to ignite adjacent vegetation and start a fire, especially during weather events that include low humidity and high wind speeds.

Implementation of firesafe maintenance practices (**Mitigation Measure SEIR-HAZ-1 [new mitigation measure]**) and modifications to campground operations during periods of high fire hazard (**Mitigation Measure SEIR-HAZ-2 [new mitigation measure]**) would further reduce operations-phase impacts at the new campground; therefore, impacts would be **less than significant with mitigation incorporated**.

Changes in Borrow Area Location

As noted, Borrow Areas 12 and 14 would also be used as borrow sites under the Modified Project and are located within the overall construction footprint identified by the Approved Project, but were identified in that document and analyzed as anticipated contractor staging areas. Blasting and soil/rock excavations at all borrow sites would require the use of vehicles, heavy equipment, and other powered tools. As noted in the Campground Construction and Improvement discussion, heat or sparks from equipment and vehicles, as well as the use of flammable materials, have the potential to ignite adjacent vegetation and start a fire, especially during weather events that include low humidity and high wind speeds. As described above, Mitigation Measures HAZ-1 (Fire Prevention Plan) and HAZ-4 (contractor education, spark arrestors, and smoking/campfire restrictions) would be implemented during construction of the Modified Project. Impacts would be **less than significant with mitigation incorporated**.

Minor Additions to Contractor Work Area

As noted, contractor work areas would be used for soil stockpiling and overnight parking, fueling, and maintenance of heavy equipment. The potential for increased wildfire ignitions at these sites would be like that described for campground construction and day use area improvements. As described above, Mitigation Measures HAZ-1 (Fire Prevention Plan) and HAZ-4 (contractor education, spark arrestors, and smoking/campfire restrictions) would be implemented during construction of the Modified Project. Impacts would be **less than significant with mitigation incorporated**.

Additional Construction Assumptions

Additional construction assumptions include changes to the construction schedule, equipment and personnel specifications, and dewatering specifications for proposed excavations at the base of the dam. As described above, Mitigation Measures HAZ-1 (Fire Prevention Plan) and HAZ-4 (contractor education, spark arrestors, and smoking/campfire restrictions) would be implemented during construction of the Modified Project. Impacts would be **less than significant with mitigation incorporated.**

Cumulative Impacts

Construction activities at each of the cumulative project sites would utilize tools, equipment, vehicles, and flammable materials that have the potential to ignite adjacent vegetation and start a fire, especially during weather events that include low humidity and high wind speeds. Additionally, increased human presence in areas classified as Moderate and High FHSZs could increase the potential for wildfire ignitions. Mitigation Measures HAZ-1 (Fire Prevention Plan) and HAZ-4 (contractor education, spark arrestors, and smoking/campfire restrictions) would be implemented to minimize the potential for wildfire ignitions associated with the Approved Project. Additionally, Mitigation Measures SEIR-HAZ-1 (firesafe maintenance practices) and SEIR-HAZ-2 (modifications to campground operations during periods of high fire hazard) would be implemented to further reduce operations-phase impacts for the Modified Project. Through implementation of these measures, cumulative impacts associated with wildland fire hazard impacts would not be **less than significant with mitigation incorporated**.

Comparison to 2019 EIS/EIR

The additional project components analyzed above would result in less-than-significant impacts with mitigation incorporated and therefore impacts of the Modified Project would not result in a significant increase in the severity of impacts as determined in the 2019 EIS/EIR. Impacts of the Modified Project would remain less than significant with mitigation incorporated (see Section 3.8.5).

3.8.5 Mitigation Measures

The following mitigation measures are required to reduce hazards and hazardous materials impacts. Notably, Mitigation Measures HAZ-1 and HAZ-4 are identical to Mitigation Measures HAZ-1 and HAZ-4 identified in the 2019 EIS/EIR, whereas Mitigation Measures SEIR-HAZ-1 and SEIR-HAZ-2 have been added as new mitigation. Mitigation Measure HAZ-2 identified in the 2019 EIS/EIR is not required to reduce hazards and hazardous materials impacts specifically resulting from new or changed components of the Modified Project as discussed above. However, Mitigation Measure HAZ-2 identified in the 2019 EIS/EIR remains applicable to the Modified Project as determined by the 2019 EIS/EIR.

As discussed previously, the seaplane base is no longer operational. Therefore, Mitigation Measure HAZ-3 identified in the 2019 EIS/EIR, which requires coordination with the seaplane base, is no longer required

TR-1 See Section 3.7.5 for mitigation measure.

HAZ-1 **(Same as HAZ-1 in 2019 EIS/EIR):** The construction contractor in coordination with the Lead Agencies shall work with the CDPR and the Central Valley RWQCB to review existing monitoring data of the San Luis Reservoir SRA LUST Cleanup Site to evaluate the potential for interacting with hazardous soil contamination during construction. If the construction contractor and the Lead Agencies (as the responsible party for this potential disturbance) determine that interaction with contaminated soil cannot be avoided and these construction actions could generate a release of this soil to nearby water bodies or elsewhere off site, the construction contractor shall prepare a Contaminated Soil/Groundwater Remediation Plan. This remediation plan will detail the nature of the contaminants on site, measures required to avoid interaction with these contaminants including if necessary a pre-construction cleanup of the site, and a response action plan in the event of an inadvertent release of contaminated soils from the construction site. This plan will be submitted to the CDPR and the Central Valley RWQCB for review and approval prior to any construction taking place.

In addition, the construction contractor shall also prepare a Spill Prevention and Response Plan for preventing spills and responding to chemical or hazardous substance spills. This plan will include spill prevention management, including employee training, hazardous substance inventory, and spill response equipment. The plan will also include a spill response plan, including evacuation procedures, spill containment and cleanup, and reporting a release.

Finally, the construction contractor shall prepare a Fire Prevention Plan to prevent a fire from occurring. The plan must include (Occupational Safety and Health Administration 2018 [as cited in 2019 EIS/EIR]):

- A list of all major fire hazards, proper handling and storage procedures for hazardous materials, potential ignition sources and their control, and the type of fire protection equipment necessary to control each major hazard.
- Procedures to control accumulations of flammable and combustible waste materials.
- Procedures for regular maintenance of safeguards installed on heat-producing equipment to prevent the accidental ignition of combustible materials.
- The name or job title of employees responsible for maintaining equipment to prevent or control sources of ignition or fires.
- The name or job title of employees responsible for the control of fuel source hazards.

Note that HAZ-1 is identified in the 2019 EIS/EIR and includes additional content that is not required for reduction of significant fire impacts resulting from components of the Modified Project. However, for consistency, the entirety of the mitigation measure is listed here.

HAZ-3 **(HAZ-3 in 2019 EIS/EIR):** This measure is eliminated with the SEIR because the San Luis Reservoir Seaplane Base is no longer operational.

HAZ-4 **(Same as HAZ-4 in 2019 EIS/EIR):** The Lead Agencies will include requirements in all construction contracts requiring the use of spark arrestors on all construction equipment. The contract shall also include requirements for the contractor to educate all construction workers about the risk of starting a wildfire and how to avoid it and who to contact in case a wildfire is started. In addition, restrictions shall be placed on smoking and campfires for any personnel utilizing Basalt Campground.

SEIR-HAZ-1 **(New mitigation measure):** Maintenance of Modified Project buildings, grounds, and infrastructure, including defensible space areas, shall be conducted using firesafe practices to minimize the potential for wildfire ignitions resulting from equipment use. Firesafe practices shall be consistent with California Public Resources Code Sections 4427, 4428, 4431, and 4442. Maintenance activities shall be ceased during periods of high fire hazard (e.g., red flag warnings), except where necessary to maintain public safety and available water supply for fire suppression purposes.

SEIR-HAZ-2 **(New mitigation measure):** Campground operations shall be modified during periods of high fire hazard (e.g., red flag warnings) to reduce the potential for wildfire ignitions. Modifications may include, but are not limited to, banning campfires and open flames, and partially or completely closing the campground to the public.

3.8.6 Level of Significance After Mitigation

The Modified Project would result in potentially significant impacts with respect to potential conflicts with emergency vehicles in the form of traffic slowdowns or temporary roadway blockages during construction activities. Mitigation Measure TR-1 which requires implementation of a Construction Traffic Control Plan would reduce impacts to a level below significance.

The potential risk of wildfire ignition and spread associated with construction activities for the Modified Project. Mitigation Measures HAZ-1 and HAZ-4, which require preparation of a Fire Prevention Plan by the construction contractor, education of construction personnel regarding wildfire prevention, the use of spark arrestors, and restrictions on smoking and campfires, would be implemented during construction of the Modified Project. With implementation of these measures, construction-related impacts would be less than significant.

The Modified Project would result in potentially significant impacts related to increased wildfire ignition potential associated with operations of the proposed new campground. The increase in ignition sources during campground usage (e.g., campfires, barbecues, vehicles, humans) and maintenance (e.g., vehicles, powered tools/equipment) in a currently undeveloped area could exacerbate wildfire risk, especially during weather events that include low humidity and high wind speeds. Mitigation Measures SEIR-HAZ-1 and SEIR-HAZ-2, which require implementation of firesafe maintenance practices and modifications to campground operations during periods of high fire hazard, respectively, would reduce impacts to a level below significance.

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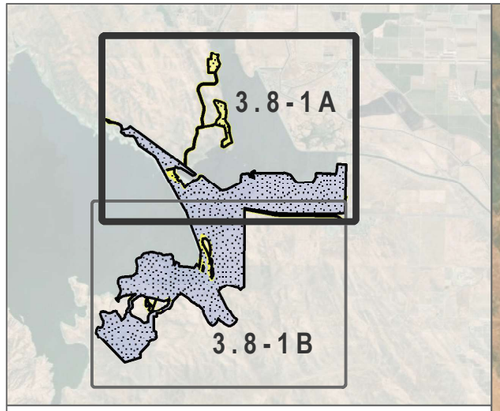

- Modified Project
- Modified Project Features
- Modified Project - Additional Impact Areas
- Approved Project (2019 EIS/EIR)
- Existing Transmission Lines

Hazardous Materials Pipelines

- Hazardous Liquid Pipeline
- Hazardous Liquid Pipeline and Gas Transmission Line

Hazardous Materials Sites

- Maintenance Facility
- Romero Ranch
- Abandoned Oil Well
- Forebay Chevron Station

*The 2019 EIS/EIR analyzed impacts of the project within the East Dike and Medeiros Campground area but did not include these areas in mapping of the project footprint. These areas have been added to the Approved Project footprint to correct this mapping omission.

Proposed Campground Area
San Luis Creek Day Use Area Improvements
San Luis Wasteway
Delta-Mendota Canal
Santa Nella
O'Neill Forebay
East Dike *
Left Abutment
Gianelli Pumping-Generating Plant
Spillway Inlet
San Luis Reservoir
B. F. Sisk Dam
Additional Staging and Stockpiling Area
North Valley Section
South Valley Section
CAL FIRE Station
Borrow Area 6
Mederios Campground *
Office Complex
PG&E Transmission Lines and Easement
GONZAGA RD
Panoche

SOURCE: Basemap: ESRI World Imagery
Project Boundary: Reclamation, 3/14/20
Previous Boundary: DWR, 4/2019

DUDEK

0 1,050 2,100 Feet

FIGURE 3.8-1A

Hazardous Materials Sites, Northern Portion

B.F. Sisk Dam Safety of Dams Modification Project SEIR

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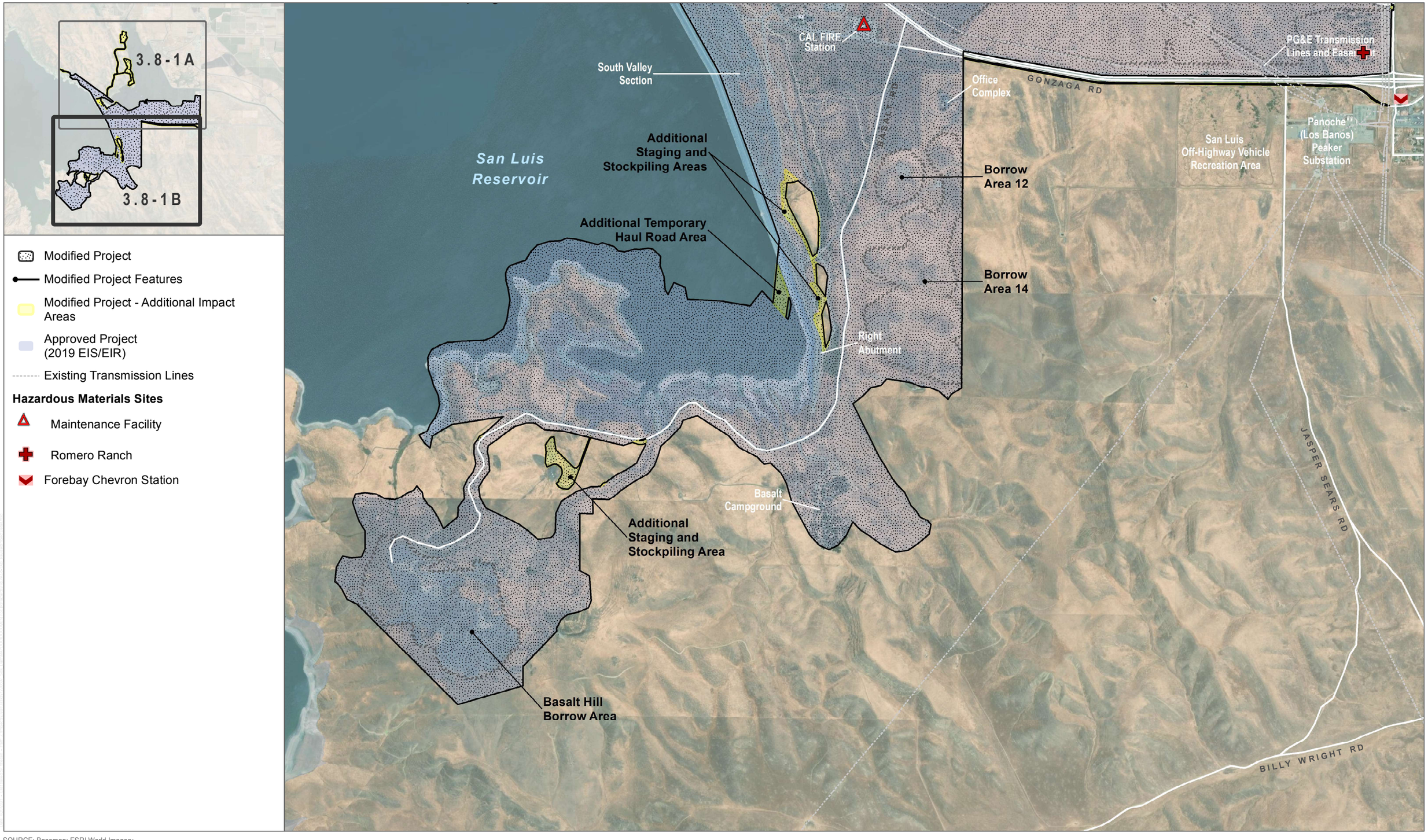

SOURCE: Basemap: ESRI World Imagery
Project Boundary: Reclamation, 3/14/20
Previous Boundary: DWR, 4/2019

DUDEK

0 1,100 2,200 Feet

FIGURE 3.8-1B

Hazardous Materials Sites, Southern Portion

B.F. Sisk Dam Safety of Dams Modification Project SEIR

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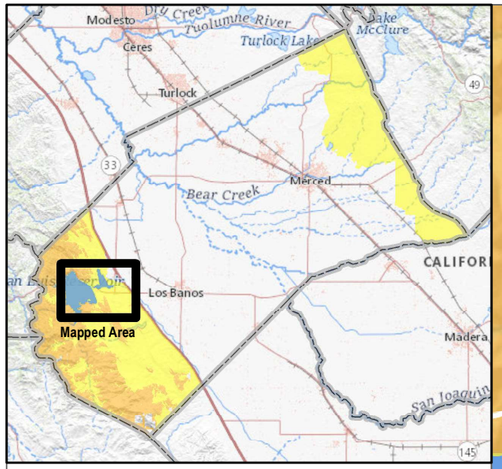

Modified Project Site

Fire Hazard Severity Zone

Moderate

High

SOURCE: CALFire

DUDEK

0 2,300 4,600 Feet

FIGURE 3.8-2

Fire Hazard Severity Zones

B.F. Sisk Dam Safety of Dams Modification Project SEIR

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