

3.16 Hazards and Public Health

3.16.1 Introduction

This section analyzes the proposed project's potential impacts related to hazards and public health. It describes existing conditions in the project area and summarizes the overall federal, state, and local regulatory framework for hazards and public health, and it analyzes the potential for the proposed project to affect these resources.

3.16.2 Existing Conditions

This section discusses the existing conditions related to hazards and public health in the study area. For purposes of the hazards and public health evaluation, the study area consists of the project area and the immediately adjacent rural area.

3.16.2.1 Hazardous Materials

Hazardous materials are chemicals and other substances defined as hazardous by Federal and state laws and regulations. In general, these materials are substances that, because of their quantity, concentration, or physical, chemical, or infectious characteristics, may have harmful effects on public health or the environment during their use or when released to the environment. Hazardous materials also include waste chemicals and spilled materials.

Potential and Known Sources of Hazardous Materials

The study area is located in a rural area downstream of urbanized Oroville. Potential sources of hazardous materials and waste may exist in the urbanized as well as agricultural areas. As described in detail in Section 3.3, *Hydrology and Water Quality*, the presence of contaminants in the Lower Feather River Watershed is influenced by agricultural and urban runoff, as well as municipal water use in surrounding areas. Identified contaminants in the Feather River, based on the State Water Resources Control Board's 2010 California Integrated Report, include chlorpyrifos, Group A pesticides, and polychlorinated biphenyls (PCBs) associated with agricultural activities, as well as mercury associated with resource extraction (State Water Resources Control Board 2011).

The California Department of Toxic Substances Control's (DTSC's) Envirostor database provides access to detailed information on hazardous waste facilities within California, including permitted activities, and corrective actions for site cleanup. According to the Envirostor database, the nearest potentially hazardous site is a 0.25-acre area located approximately 2 miles north of the study area at the Oroville Municipal Airport and for which no specific contaminants have been identified (California Department of Toxic Substances Control 2007).

In addition, a historic burn area was identified nearby during a Phase 1 site assessment, and therefore the soil was sampled in this area. With the exception of arsenic, no substances tested for were found in concentrations greater than allowed under the U.S. Environmental Protection Agency's Region 9 Regional Screening Levels for industrial worker exposure. The arsenic levels were determined to be a result of naturally occurring arsenic in the region and not from a human source (HDR 2015) (Appendix 3.16-A).

3.16.2.2 Public Safety

Nearby Schools and Airports

The nearest school to the study area, Oakdale Heights Elementary, is approximately 4 miles northeast of the study area. The nearest public use airport to the study area is Oroville Municipal Airport, approximately 1.6 miles north of the study area. The closest private airstrip is the Jones Ag-aviation Airport, a small airfield approximately 3.4 miles northwest of the study area.

Wildland Fires

The large areas of undeveloped and agricultural land in the study area typically pose a risk for wildland fires. The California Department of Forestry and Fire Protection (CAL FIRE) identifies areas of very high fire hazard severity zones within both State Responsibility Areas (SRAs) and Local Responsibility Areas (LRAs), and maps these severity zones based on modeling of expected fire behavior over a 30-50 year period (California Department of Forestry and Fire Protection 2008). The study area falls within a CAL FIRE-designated LRA categorized as a Non-Very High Fire Hazard Severity Zone (Non-VHFHSZ) (California Department of Forestry and Fire Protection 2008). As such, the modeled risk of wildland fire is low.

Fire protection and emergency services within the study area are provided by Butte County Cooperative Fire Protection, a cooperative system consisting of CAL FIRE, Butte County, the Cities of Gridley and Biggs and the Town of Paradise. Refer to Section 3.15, *Utilities and Public Services*, for more detail about fire protection responsibilities in the study area.

Emergency Response

Emergency response and evacuation services for unincorporated Butte County, including the study area, are provided by Butte County Cooperative Fire Protection, a full service regional fire and rescue provider (County of Butte 2013). In addition, California Department of Fish and Wildlife game wardens and the California Highway Patrol (CHP) provide law enforcement and emergency response services in the study area. The Butte County Office of Emergency Management coordinates interagency and intergovernmental comprehensive emergency management planning and operations in the event of a large-scale emergency. Fire protection and emergency services provided within the study area are described in Section 3.15, *Utilities and Public Services*.

3.16.3 Regulatory Setting

3.16.3.1 Federal

Resource Conservation and Recovery Act

The Federal Resource Conservation and Recovery Act enables U.S. Environmental Protection Agency (EPA) to administer a regulatory program that extends from the manufacture of hazardous materials to their disposal, thus regulating the generation, transportation, treatment, storage, and disposal of hazardous waste at all facilities and sites in the nation.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (also known as Superfund) was passed to facilitate the cleanup of the nation's toxic waste sites. In 1986, the act was amended by the Superfund Amendment and Reauthorization Act Title III (community right-to-know laws). Title III states that past and present owners of land contaminated with hazardous substances can be held liable for the entire cost of the cleanup, even if the material was dumped illegally when the property was under different ownership.

Federal Aviation Regulations Part 77 Regulations

Federal Aviation Regulations (FAR) Part 77 (14 CFR 77) establish standards for what constitutes an obstruction to navigable airspace. Obstructions include any object if it is: (1) 500 feet above ground level; (2) 200 feet above ground level or above the established airport elevation, whichever is higher, within 3 nautical miles of an airport and (3) above a height within a terminal obstacle clearance area or an en route obstacle clearance area.

3.16.3.2 State

Hazardous Materials Release Response Plans and Inventory Act of 1985

The Hazardous Materials Release Response Plans and Inventory Act, also known as the Business Plan Act, requires businesses using hazardous materials to prepare a plan that describes their facilities, inventories, emergency response plans, and training programs. Hazardous materials are defined as unsafe raw or unused material that is part of a process or manufacturing step. They are not considered hazardous waste. Health concerns pertaining to the release of hazardous materials, however, are similar to those relating to hazardous waste.

Hazardous Waste Control Act

The Hazardous Waste Control Act created the State hazardous waste management program, which is similar to, but more stringent than, the Federal Resource Conservation and Recovery Act program. The act is implemented by regulations contained in Title 26 of the California Code of Regulations, which describes the following elements required for the proper management of hazardous waste.

- Identification and classification.
- Generation and transportation.
- Design and permitting of recycling, treatment, storage, and disposal facilities.
- Treatment standards.
- Operation of facilities and staff training.
- Closure of facilities and liability requirements.

These regulations list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of such waste. Under the Hazardous Waste Control Act and Title 26, the generator of hazardous waste must complete a manifest that accompanies the waste from generator to transporter to the ultimate disposal location. Copies of the manifest must be filed with DTSC.

Emergency Services Act

Under the Emergency Services Act, the State developed an emergency response plan to coordinate emergency services provided by Federal, state, and local agencies. Rapid response to incidents involving hazardous materials or hazardous waste is an important part of the plan, which is administered by the California Office of Emergency Services. The office coordinates the responses of other agencies, including EPA, CHP, Regional Water Quality Control Boards (RWQCBs), air quality management districts, and county disaster response offices.

3.16.3.3 Local

Butte County General Plan

Butte County has adopted goals and policies related to public health and environmental hazards. The Health and Safety Element of the Butte County General Plan addresses fire hazards, hazardous materials, and emergency response and disaster preparedness issues through its goals and policies (County of Butte 2012). The following relevant goals and policies address natural and human-made hazards and emergency response.

Goal HS-12: Protect people and property from wildland or urban fires.

Goal HS-13: Identify safe and effective evacuation routes and access for fire prevention and suppression.

Goal HS-14: Reduce risks from the harmful effects of hazardous materials.

- **Policy HS-P14.1** The County supports the hazardous materials Emergency Response Plan (Area Plan).
- **Policy HS-P14.2** Hazardous materials carrier routes shall be designated to direct hazardous materials transport away from populated areas.

Goal HS-15: Ensure that Butte County is prepared for emergency situations.

- **Policy HS-P15.1** The County shall conduct continuous advance planning to anticipate potential threats and improve emergency response effectiveness.
- **Policy HS-P15.2** Critical emergency response facilities such as fire, police, emergency service facilities and utilities shall be sited to minimize their exposure to flooding, seismic effects, fire, or explosion.
- **Policy HS-P15.3** Emergency access routes shall be kept free of traffic impediments.

Certified Unified Program Agency (CUPA)

The Butte County Public Health Department (BCPHD) serves as the local Certified Unified Program Agency (CUPA), the agency certified by the California Secretary of Environmental Protection to implement the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program specified in California Health and Safety Code Chapter 6.11, for Butte County. As such, BCPHD oversees the regulatory programs for Hazardous Materials Business Plans, underground and aboveground storage tanks, onsite treatment of hazardous waste, hazardous waste generators, and California Accidental Release Prevention.

3.16.4 Environmental Effects

Potential impacts of the proposed project on public health and hazards are discussed in the context of State CEQA Guidelines Appendix G checklist items.

- a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Impact HAZ-1: Create a hazard as a result of project construction (less than significant for all components)

Construction associated with all three components of the proposed project would involve hazardous materials, such as fuels and lubricants, from the operation of construction equipment and vehicles (e.g., excavators, compactors, haul trucks, and loaders). Fuels and lubricants have the potential to be released into the environment at individual construction sites and along haul routes, causing potential environmental and human exposure to these hazards. The implementation of a Storm Water Pollution Prevention Plan (SWPPP) and a Spill Prevention, Control, and Countermeasure Plan (SPCCP), as described in Chapter 2, *Project Description*, would avoid release of fuels and lubricants and thereby ensure that this impact would be less than significant.

- b. 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?*

Impact HAZ-2: Exposure of the public or the environment to the accidental release of hazardous materials (less than significant with mitigation for all components)

Ground-disturbing activities such as clearing, stripping, and grading would be associated with the proposed vegetation management activities, hydraulic improvements, and recreation improvements. This ground disturbance could inadvertently expose site workers, the public, and the environment to preexisting onsite contaminants, possibly including mercury, during project construction. In addition, small quantities of potentially toxic substances (such as petroleum and other chemicals used to operate and maintain construction equipment) would be used in the study area and transported to and from the area during construction.

However, the handling and disposal of these materials would be governed according to the Federal and state regulations previously discussed. In addition, regulations under the Federal Clean Water Act (CWA) require contractors to avoid allowing the release of materials into surface waters as part of their SWPPP and National Pollutant Discharge Elimination System permit requirements (see Section 3.3, *Hydrology and Water Quality*, for a discussion of the CWA and SWPPP requirements). Implementation of a SWPPP and a SPCCP, as described in Chapter 2, *Project Description*, and Section 3.3, *Hydrology and Water Quality*, would ensure that safety measures and precautions are taken to avoid the release of toxic substances during construction, thereby reducing any potential impacts associated with the accidental upset or release of hazardous materials. If a release were to occur, the commitment to prepare a SWPPP would ensure that water quality would be returned to baseline conditions and that any threat to public health would be met with an effective response. Soil testing has occurred at the site of the gabion rock inflow weir, and no contaminants or constituents above naturally occurring levels were detected (HDR 2015) (Appendix 3.16-A). Mitigation Measure HAZ-MM-1 will ensure that ground disturbing activities at the notch connection to the Feather River do not release hazardous materials into the Feather by requiring preconstruction testing and

preparation of a contaminant safety plan. Implementation of the SWPPP and mitigation measure would reduce this impact to a less-than-significant level.

Mitigation Measure HAZ-MM-1: Soil Testing and Contaminant Safety Plan

SBFCA will implement the following measures at the notch connection to the Feather River before ground-disturbing activities begin, in order to reduce health hazards associated with potential exposure to hazardous substances.

- Prior to disturbance of study area soils, shallow soils samples will be taken at each site of proposed ground disturbance within the study area and analyzed to determine the presence of any contaminated soils with concentrations above worker safety thresholds established by the RWQCB.
- SBFCA or its contractor will be responsible for reporting the test results of any soil with hazardous material content to the CUPA (Butte County Public Health Department), the RWQCB, DTSC, and all other appropriate Federal, state or local regulatory agencies within 21 days of the completion of testing, accompanied by a map showing the excavation location.
- Any soils with chemicals exceeding the RWQCB Environmental Screening Levels for commercial uses or hazardous waste limits will be characterized, removed, and disposed of offsite at a licensed hazardous materials disposal site.
- SBFCA will prepare a site plan that identifies any necessary remediation activities appropriate for proposed land uses, including excavation and removal of contaminated soils, and redistribution of clean fill material on the project site. The plan will include measures that ensure the safe transport, use, and disposal of contaminated soil and building debris removed from the site, as well as any other hazardous materials. In the event that contaminated groundwater is encountered during site excavation activities, the contractor will report the contamination to the appropriate regulatory agencies, dewater the excavated area, and treat the contaminated groundwater to remove contaminants before discharge into the sanitary sewer system. The contractor will be required to comply with the plan and applicable Federal, state, and local laws.
- SBFCA or its contractor will notify the appropriate Federal, state, and local agencies if evidence of previously undiscovered soil or groundwater contamination is encountered during construction activities. Any contaminated areas will be cleaned up in accordance with the recommendations of the CUPA (Butte County Public Health Department), RWQCB, DTSC, or other appropriate Federal, state or local regulatory agencies.
- SBFCA or its contractor will prepare a worker health and safety plan before the start of construction activities that identifies, at a minimum, all contaminants that could be encountered during construction activity; all appropriate worker, public health, and environmental protection equipment and procedures to be used during project activities; emergency response procedures; the most direct route to the nearest hospitals; and a site safety officer. The plan will describe actions to be taken should hazardous materials be encountered onsite, including protocols for handling hazardous materials and preventing their spread, and emergency procedures to be taken in the event of a spill.

c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No public or private K–12 schools are within 0.25 mile of the study area and it is unlikely that hazardous materials would be emitted or released within 0.25 mile of any schools. The nearest school, Oakdale Heights Elementary, is approximately 4 miles northeast of the study area. The proposed project would not involve hazardous emissions or the handling of acutely hazardous materials, substances, or waste, and implementation of the SWPPP and SPCCP, described in Chapter 2, *Project Description*, would further reduce the likelihood of a hazardous spill incident. There would be no impact.

d. 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?

As described above, the nearest known hazardous materials site is located approximately 2 miles north of the study area. Therefore, the proposed project would not be located on a site included on a list of hazardous materials sites, creating a hazard to the public or the environment. There would be no impact.

e. Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area?

Impact HAZ-3: Cause a safety hazard to residents or construction personnel related to air traffic (less than significant for all components)

The closest public airport to the study area is the Oroville Municipal Airport, located approximately 1.6 miles north of the study area. A portion of the study area falls within Zones C and D designated by the Butte County Airport Land Use Compatibility Plan, as described in Section 3.12, *Land Use*. The ALUCP defines Zones C and D, as the principal traffic pattern for each runway and the Federal Aviation Regulations (FAR) Part 77 conical (height) limits, respectively.

However, as no structures are proposed as part of the project, the FAR Part 77 conical restrictions do not apply to the proposed project. Further, the project area has no residents, no people would reside in the project area, and there would be no increase in visitors or employees. Because construction workers would be temporarily occupying the area below the airport's flight zone, the potential exists for exposure to overflight hazards. Because the project area is not located within the airport's approach or departure accident risk intensity contours, the likelihood of exposing construction workers to airport accident hazards is remote. This would be a less-than-significant impact.

f. Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area?

The closest private airstrip to the study area is the Jones Ag-aviation Airport, approximately 3.4 miles northwest of the study area. Because the study area is not within 2 miles of a private airstrip, no people would reside in the study area, and there would be no increase in visitors or employees, the proposed project would not result in a safety hazard for people residing or working in the study area. Consequently, there would be no impact associated with proximity to a private airstrip.

g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

During project construction, there would be an increase in vehicular traffic transporting workers, equipment, and materials. However, construction-related activities would not involve temporary or permanent obstruction of any major roadways within or near the study area and would not otherwise interfere with emergency operations or evacuations. No increase in traffic or use of the study area is anticipated following completion of construction activities. Therefore, there would be no impact.

h. Expose people or structures 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?

Impact HAZ-4: Cause a safety risk to residents or construction personnel related to wildland fire (less than significant for all components)

As noted in Chapter 1, *Introduction*, the project area consists primarily of a highly disturbed floodplain characterized by invasive vegetation and a network of interior channels and disconnected ponds interspersed with extensive, isolated ridges and piles of rock. No residences are present within the project area and the area is not located adjacent to an urbanized area. However, dry climate conditions can create circumstances rich with fuels and susceptible to wildland fire.

The most likely source of wildland fire ignition from the proposed project would be associated with operation of construction vehicles in the project area under dry conditions. Although the potential for wildland fires exists in the study area, CAL FIRE has characterized the area as a Non-VHFHSZ. Because the study area is not located in a high fire hazard zone, is already in public use, and already receives fire protection services from Butte County Cooperative Fire Protection, the conditions and services necessary to protect the area are in place. No increase in visitor use is expected and no structures would be built as part of the proposed project. Consequently, the potential for exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires is less than significant.