

3.10 PUBLIC SAFETY AND HAZARDS

This section describes the potential impacts of the proposed Meeks Bay Restoration Project related to public safety and hazards. Geologic hazards, including natural hazards associated with landslides, faulting, tsunamis, and seiches, are discussed in Section 3.7, "Geology and Soils." Risks associated with flooding are discussed in Section 3.6, "Hydrology and Water Quality."

3.10.1 Regulatory Setting

Section 3.6.1, "Regulatory Setting," in Section 3.6, "Hydrology and Water Quality," includes discussions of applicable Clean Water Act regulations, TRPA Code of Ordinances regulations related to water quality and hazards, and applicable state regulations related to the Porter-Cologne Water Quality Control Act of 1970, Lahontan RWQCB Basin Plan, and the National Pollutant Discharge Elimination System permit program.

FEDERAL

LTBMU Land Management Plan

The Land Management Plan for LTBMU (also known as the Forest Plan) provides strategic guidance to LTBMU for forest management (USFS 2016). The plan provides a framework for informed decision making, while guiding resource management programs, practices, uses, and projects. It does not include specific project and activity decisions but does include standards and guidelines that set mandatory limits and constraints on management activities to help achieve or maintain the desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements. The Land Management Plan includes the following standard and guidelines that are applicable to public safety and hazards:

- ▶ SG5. Apply current version of the Pacific Southwest Region Best Management Practices as described in Forest Service Handbook direction for Soil and Water Conservation, Water Quality Management, and Forest Service National Core BMP Technical Guide to all management activities. [Standard]
- ▶ SG7. Store fuel and other toxic materials only at designated sites. Prohibit storage of fuel and other toxic materials within SEZs except at designated administrative sites and sites covered by a Special Use Authorization. Refuel outside of SEZs unless there are no other alternatives. [Guideline]
- ▶ SG22. Where possible, provide a 100-foot radius of defensible space around all structures on all USFS structures or USFS permitted structures as well as for non-federal structures adjacent to National Forest System lands. More than 100 feet of defensible space may be needed, depending on site conditions. [Guideline]
- ▶ SG138. Ensure that facilities comply with health and safety codes. [Guideline]

The Forest Plan directs projects to comply with applicable regulations that protect public health and safety (e.g., Clean Water Act, etc.) and acknowledges that there are dedicated agencies that govern public health and safety issues (e.g., El Dorado County Environmental Management Department).

Boating Safety

Section 10 of the Rivers and Harbors Act of 1899 requires that regulated activities conducted below the ordinary high-water elevation of navigable waters of the United States be approved/permitted by the U.S. Army Corps of Engineers (USACE). Regulated activities include the placement/removal of structures, work involving dredging, disposal of dredged material, filling, excavation, or any other disturbance of soils/sediments or modification of a navigable waterway. Lake Tahoe is considered a navigable waterway.

The Federal Boat Safety Act was enacted by Congress in August 1971 and provides authority for the U.S Coast Guard to establish comprehensive boating safety programs, authorizes the establishment of national construction and

performance standards for boats and associated equipment and creates a more flexible regulatory authority concerning the use of boats and associated equipment.

The U.S. Code of Federal Regulations (CFR) contains regulations governing the safe operation of boats in Title 33: Navigation and Navigable Waters. This includes regulations about the carriage and use of personal floatation devices (33 CFR 175.11 et seq.), visual distress signals (33 CFR 175.101 et seq.), and proper ventilation systems (33 CFR 175.201).

Management of Hazardous Materials

Various federal laws address the proper handling, use, storage, and disposal of hazardous materials, as well as requiring measures to prevent or mitigate injury to health or the environment if such materials are accidentally released. The U.S. Environmental Protection Agency (EPA) is the agency primarily responsible for enforcement and implementation of federal laws and regulations pertaining to hazardous materials. Applicable federal regulations pertaining to hazardous materials are primarily contained in Code of Federal Regulations (CFR) Titles 29, 40, and 49. Hazardous materials, as defined in the Code, are listed in 49 CFR 172.101. Management of hazardous materials is governed by the following laws.

- ▶ The Toxic Substances Control Act of 1976 (15 U.S. Code [USC] Section 2601 et seq.) regulates the manufacturing, inventory, and disposition of industrial chemicals, including hazardous materials. Section 403 of the Toxic Substances Control Act establishes standards for lead-based paint hazards in paint, dust, and soil.
- ▶ The Resource Conservation and Recovery Act of 1976 (42 USC 6901 et seq.) is the law under which EPA regulates hazardous waste from the time the waste is generated until its final disposal (“cradle to grave”).
- ▶ The CFR contains regulations regarding the discharge of fuel, oil, oily wastes, and hazardous substances into navigable waters of the United States (40 CFR 110.3).
- ▶ The U.S. Department of Transportation (USDOT) regulates transport of hazardous materials between states and is responsible for protecting the public from dangers associated with such transport. The federal hazardous materials transportation law (49 USC Section 5101 et seq.; formerly the Hazardous Materials Transportation Act, 49 USC Section 1801 et seq.) is the basic statute regulating transport of hazardous materials in the United States. Hazardous materials regulations are enforced by the Federal Highway Administration, the U.S. Coast Guard, the Federal Railroad Administration, and the Federal Aviation Administration.

Transport of Hazardous Materials

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Worker Safety

The federal Occupational Safety and Health Administration (OSHA) is the agency responsible for assuring worker safety in the handling and use of chemicals identified in the Occupational Safety and Health Act of 1970 (Public Law 91-596, 9 USC 651 et seq.). OSHA has adopted numerous regulations pertaining to worker safety, contained in CFR Title 29. These regulations set standards for safe workplaces and work practices, including standards relating to the handling of hazardous materials and those required for excavation and trenching.

TAHOE REGIONAL PLANNING AGENCY

Tahoe Regional Plan

The TRPA Regional Plan contains goals and polices intended to help the region achieve and maintain adopted environmental threshold carrying capacities while providing for orderly growth and development consistent with such

capacities. There are a variety of goals and policies related to public health and safety within the TRPA Regional Plan. Chapter 2, "Land Use Element," of the Goals and Policies document sets forth fundamental land use philosophies, which include the maintenance of the environmental, economic, social, and physical well-being of the Region. The Natural Hazards Subelement aims to minimize risks from natural hazards such as earthquakes, and seiches. The Water Quality Subelement aims to maintain thresholds for water quality by addressing point and non-point sources of pollution. Relevant polices include the following:

- ▶ Policy WQ-2.5. TRPA shall cooperate with other agencies with jurisdiction in the Lake Tahoe region in the preparation, evaluation, and implementation of toxic and hazardous spill control plans.
- ▶ Policy WQ-2.6. Liquid or solid wastes from recreational vehicles and boats shall be discharged at approved pump-out facilities. Pump-out facilities will be provided by public utility districts, marinas, campgrounds, and other relevant facilities in accordance with standards set forth in the Best Management Practices Handbook.

Chapter 4, "Conservation Element," plans for the preservation, development, utilization, and management of the scenic and other natural resources within the region. The Shorezone Subelement contains goals and policies that govern development in the shorezone area of Lake Tahoe. Relevant policies include the following:

- ▶ Policy SZ-1.9. The Agency shall regulate the placement of new piers, buoys, and other structures in the foreshore and nearshore to avoid degradation of fish habitats, creation of navigation hazards, interference with littoral drift, interference with the attainment of scenic thresholds, and other relevant concerns.
- ▶ Policy SZ-1.11. The Agency shall regulate the maintenance, repair, and modification of piers and other structures in the nearshore and foreshore.

Chapter 6, "Public Services and Facilities Element," includes goals and policies related to the provision of adequate public services to meet the needs of existing and new development. Relevant policies include the following:

- ▶ Policy PS-1.1. Public services and facilities should be allowed to upgrade and expand consistent with the land use element of the Regional Plan and federal, state, and local standards.
- ▶ Policy PS-4.1. The impact on educational and public safety services shall be considered when reviewing projects and plan amendments proposed within the region. To the extent feasible, adverse impacts should be mitigated as part of the review process.
- ▶ Policy PS-4.2. Educational and emergency service organizations should anticipate and plan for projected demands and needs consistent with the regional plan and are encouraged to advise the agency when development potentials exceed current or anticipated service capabilities or capacities.

Code of Ordinances

The TRPA Code of Ordinances compiles all the laws and ordinances needed to implement the Tahoe Regional Plan goals and policies. In addition to the applicable TRPA Code sections related to water quality summarized in Section 3.6, "Hydrology and Water Quality," the Code section applicable to public health and safety for the project is summarized in Table 3.10-1.

Table 3.10-1 Applicable TRPA Code Requirements Related to Public Safety and Hazards

Code Section	Summary of Requirements
Section 84.10	Identifies the requirements applicable to other activities and uses in the shorezone, including operation of watercraft, no-wake zones (within 600 feet of the waterline of the lake, 200 feet of shorezone structures, and 100 feet of swimmers and non-motorized watercraft), and water-oriented outdoor recreation concessions.

Source: TRPA 2021.

State Route 89 Corridor Management Plan

The SR 89 Recreation Corridor Management Plan (CMP) consists of a series of corridor-wide strategies and recommendations along SR 89 on Tahoe’s west shore that would help resolve corridor issues, such as challenges for emergency access and evacuation, and address opportunities developed in coordination with plan partners,

stakeholders, and public (TRPA et al. 2020). The CMP summarizes current plan recommendations, core strategies, and actions to implement projects and move the corridor towards its goals. The CMP includes the goals and objectives that are relevant to enhancing facilities and utilizing management strategies that enhance emergency access and evacuation routes. Overall, the desired conditions for the SR 89 Recreation Corridor require an increase in operational capacity to effectively administer visitor management strategies and reduce impacts on natural and cultural resources. It is recognized that more coordinated management approaches that control how people arrive to recreation destinations are needed, which includes support for transit and opportunities for traveling by bicycle. The desire is for managing travel to achieve an even distribution of visitors throughout the day and a more organized transportation approach that eliminates the chaos caused from visitors parking and walking along the highway that results in safety, emergency access, and evacuation issues.

STATE

Uniform Fire Code

The Uniform Fire Code includes regulations relating to construction, maintenance, and use of buildings. Topics addressed in the Uniform Fire Code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and premises. The Uniform Fire Code includes specialized technical regulations related to fire and life safety.

California Fire Code

The California Fire Code is Part 9 of the California Code of Regulations (CCR), Title 24, also referred to as the California Building Standards Code. The California Fire Code incorporates the Uniform Fire Code with necessary California amendments. It prescribes regulations consistent with nationally recognized good practices for the safeguarding to a reasonable degree of life and property from the hazards of fire, explosion, and dangerous conditions arising from the storage, handling, and use of hazardous materials and devices and from conditions hazardous to life or property in the use or occupancy of buildings or premises and provisions to assist emergency response personnel.

Management of Hazardous Materials

In California, both federal and state community right-to-know laws are coordinated through the Governor's Office of Emergency Services. The federal law, SARA Title III or EPCRA, described above, encourages and supports emergency planning efforts at the state and local levels and to provide local governments and the public with information about potential chemical hazards in their communities. Because of the community right-to-know laws, information is collected from facilities that handle (e.g., produce, use, store) hazardous materials above certain quantities. The provisions of EPCRA apply to four major categories:

- ▶ emergency planning,
- ▶ emergency release notification,
- ▶ reporting of hazardous chemical storage, and
- ▶ inventory of toxic chemical releases.

The corresponding state law is Chapter 6.95 of the California Health and Safety Code (Hazardous Materials Release Response Plans and Inventory). Under this law, qualifying businesses are required to prepare a Hazardous Materials Business Plan, which would include hazardous materials and hazardous waste management procedures and emergency response procedures, including emergency spill cleanup supplies and equipment. At such time as the applicant begins to use hazardous materials at levels that reach applicable state and/or federal thresholds, the plan is submitted to the administering agency.

The California Department of Toxic Substances Control (DTSC), a division of the California Environmental Protection Agency, has primary regulatory responsibility over hazardous materials in California, working in conjunction with EPA to enforce and implement hazardous materials laws and regulations. As required by Section 65962.5 of the California Government Code, DTSC maintains a hazardous waste and substances site list for the State, known as the Cortese List. Individual regional water quality control boards (RWQCBs) are the lead agencies responsible for identifying, monitoring, and cleaning up leaking underground storage tanks (USTs). The Lahontan RWQCB has jurisdiction over the Meeks Restoration project area.

Demolition of buildings that contain asbestos is regulated as an Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP) Regulated Facility. An Asbestos NESHAP Regulated Facility is subject to a thorough asbestos inspection of the facility and testing of materials to determine whether asbestos is present that must be conducted by a Cal/OSHA-certified asbestos consultant (Cal/OSHA regulations, California Labor Code, Sections 9021.5 through 9021.8). Demolition projects require a NESHAP Notification even if there is found to be no asbestos present after testing.

Transport of Hazardous Materials and Hazardous Materials Emergency Response Plan

The State of California has adopted USDOT regulations for the movement of hazardous materials originating within the state and passing through the state; state regulations are contained in 26 CCR. State agencies with primary responsibility for enforcing state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation (Caltrans). Together, these agencies determine container types used and license hazardous waste haulers to transport hazardous waste on public roads.

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local governments and private agencies. Response to hazardous materials incidents is one part of the plan. The plan is managed by the Governor's Office of Emergency Services, which coordinates the responses of other agencies in the project area.

Worker Safety

The California Occupational Safety and Health Administration (Cal/OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations within the state. Cal/OSHA standards are typically more stringent than federal OSHA regulations and are presented in Title 8 of the CCR. Cal/OSHA conducts onsite evaluations and issues notices of violation to enforce necessary improvements to health and safety practices.

Title 8 of the CCR also includes regulations that provide for worker safety when blasting and explosives are utilized during construction activities. These regulations identify licensing, safety, storage, and transportation requirements related to the use of explosives in construction.

LOCAL

El Dorado County Local Hazard Mitigation Plan

The County developed its Local Hazard Mitigation Plan to reduce or eliminate long-term risk to people and property from natural hazards consistent with the Disaster Mitigation Act of 2000. The Plan identifies actions associated with wildfire that are summarized below (El Dorado County 2018:4-33 through 4-36). This Plan does not establish designated evacuation routes. Direction regarding evacuation routes is provided as part of evacuation orders issued by the El Dorado County Sheriff through the El Dorado County Sheriff's Office-Office of Emergency Services Alert Notification System.

- ▶ Action 14. Defensible Space Programs: Manage properties and infrastructure through the management of fuels.
- ▶ Action 15. Large Strategic Fuel Break: Provision of large strategic fuel breaks to provide landscape scale community protection.
- ▶ Action 16. Fuel Breaks in the Wildland Urban Interface: Establishment of "Shaded Fuel" breaks for dense vegetation areas approximately 300 feet wide for communities with a wildland urban interface.

El Dorado County Code

Chapter 8.09 (Vegetation Management and Defensible Space) of Title 8 of the County Code requires the removal or abatement of all hazardous vegetation and combustible material, which constitutes a fire hazard which may endanger or damage neighboring property. Section 8.09.070(F) establishes defensible space requirements for parcels in, upon, or adjoining land that is covered with flammable material.

Chapter 17 of Title 14 contains El Dorado County's SRA Fire Safe Regulations, which apply to construction within an SRA that is approved after January 1, 1991, including activities such as permitting new parcels, applying for a building permit for new construction, and road construction.

El Dorado County Environmental Management Department

El Dorado County Environmental Management Department (EDCEMD) is responsible for promoting a safe and healthy environment in the county and for enforcing hazardous waste laws and regulations at a local level. EDCEMD, as the local Certified Unified Program Agency, monitors the proper use, storage, and cleanup of hazardous materials; monitoring wells; removal of leaking USTs; and permits for the collection, transport, use, or disposal of refuse.

3.10.2 Environmental Setting

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

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

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

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

HAZARDOUS MATERIALS IN THE PROJECT AREA

Hazardous materials in or near the project area are generally associated with the potential risk of accidents from the transport and use of hazardous materials and waste to support construction activities and various commercial and industrial land uses. Many chemicals used for household cleaning, construction, landscaping, and automotive or motorized boating maintenance and repair are considered to generate hazardous materials and waste.

Marina Operations

Boat repair and maintenance activities at marinas create wastes that are considered hazardous and require proper handling. Typical wastes which are classified as hazardous include: oil, grease, diesel fuel, and oily bilge water; contaminated soil; gasoline and water; solvents, such as acetone, kerosene, mineral spirits; strong acids and alkalines; and paint chips or leftover paint.

The original marina included a fueling dock, and a gas station was located near the site of the existing visitor's center (Ascent Environmental 2022). However, Lahontan RWQCB records indicate that there are no fueling pumps at the

marina, there is no sale of fuel at the marina, and rental boat fueling at the marina was conducted from a fuel tank located on the back of the manager's pickup truck (Lahontan RWQCB 2017).

The SWRCB maintains the Geotracker database, which lists sites containing recorded hazardous materials releases and provides information regarding status of clean-up activities. DTSC maintains the Envirostor database, which is the data management system for tracking cleanup, permitting, enforcement and investigation efforts at hazardous waste facilities and sites with known contamination or sites where there may be reasons to investigate further. A search of these databases resulted in the identification of one site, a leaking underground storage tank cleanup site at the marina at Meeks Bay (SWRCB 2021, DTSC 2021). The records indicate that there was a release related to gasoline associated with an underground storage tank, but the cleanup was completed, and the case was closed in 1996. For this reason, this incident is not discussed further. Other leaking underground storage tank cleanup sites identified nearest the project area are over 1 mile to the north and to the south and these sites have been cleaned up and the cases were closed (SWRCB 2021).

Aerially Deposited Lead

Aerially deposited lead (ADL) refers to lead deposited along highway shoulders from past vehicle emissions. ADL is the result of tailpipe emissions during the years that lead was used as an additive in gasoline. Even though leaded fuel has been prohibited in California since the 1980s, ADL can still be found along the unpaved areas adjacent to highways that were in use before that time. ADL concentrations along highways can be high enough to cause the soil to be defined as a California hazardous waste. Hazardous waste law requires that this material is managed, transported, and disposed of at a Class I disposal facility (DTSC 2016).

Given the completion of roadway stormwater drainage improvements along SR 89 through 2015, ADL is not likely to remain along SR 89 at the bridge over Meeks Creek (LT Info 2021a, 2021b).

Asbestos-Containing Materials

Asbestos, a naturally occurring fibrous material, was used as a fireproofing and insulating agent in buildings constructed prior to 1979 (California Department of Industrial Relations 2021). Because it was widely used before the discovery of its health effects, asbestos is found in a variety of building materials, including sprayed-on acoustic ceiling texture, floor tiles, and pipe insulation.

Asbestos exposure is a human respiratory hazard when the asbestos becomes friable (easily crumbled) because inhalation of airborne fibers is the primary mode of asbestos entry into the body. Asbestos-related health problems include lung cancer and asbestosis. Asbestos-containing building materials are considered hazardous by Cal/OSHA when bulk samples contain more than 0.1 percent asbestos by weight. Asbestos can be evaluated only by sampling, performed by a certified technician, followed by laboratory analysis. These materials must be handled by a qualified contractor.

Construction of buildings at Meeks Bay Resort began in the 1920s (LTBMU 2011). Historic information related to the resort buildings are included in Section 3.3, "Cultural and Tribal Cultural Resources." For the purposes of the analysis in this section, changes would only be made to up to three structures in the resort depending on the action alternative: the two motel cabin buildings closest to the shoreline in the northern portion of the project area and the marina office located next to the boat ramp. The motel cabins were constructed in 1962 (LTBMU 2011). Construction on the marina began in 1962 and the marina office was built by 1969 (LTBMU 2011, Google 1969). The motel cabins along the shoreline and the marina office have a high likelihood of containing asbestos-containing building materials.

Lead-Based Paint

Lead is a potentially hazardous material that can result in cardiovascular effects, increased blood pressure and incidence of hypertension; decreased kidney function; reproductive problems; and nervous system damage. Lead can be found in old water pipes, solder, paint, and in soils around structures painted with lead-based paints. Lead-based paints are likely present on buildings constructed prior to 1978 (EPA 2019), when the quantity of lead in paints became regulated. Potentially hazardous exposures to lead can occur when lead-based paint is improperly removed

from surfaces by dry scraping, sanding, or open-flame burning. Lead-based paints and coatings used on the exterior of buildings may have also flaked or oxidized and deposited into the surrounding soils.

The motel cabins along the shoreline and the marina office have a high likelihood of containing lead-based paint.

EMERGENCY PREPAREDNESS AND EVACUATION

Emergency evacuation routes from the project area are limited to State Route (SR) 89 (NTFPD and MBFPD 2021) with the evacuation direction either to the north or to the south depending on the location of the incident (e.g., wildfire). The project area is in El Dorado County approximately 3 miles south of the El Dorado-Placer County line. The Placer Operational Area Eastside Emergency Evacuation Plan, which covers the eastern portion of Placer County, acknowledges that the limited number of roads in the area makes evacuations problematic.

The need to quickly execute a rapid evacuation requires detailed planning, de-confliction of response actions, and cooperation between first responders and supporting agencies alike (Placer County 2015). Evacuation procedures and processes are always incident driven and will vary based on the nature and location of a given incident. Evacuation routes are determined based on situational analysis with the information available at the time. The El Dorado County Sheriff's Office utilizes Code Red alerts and Integrated Public Alert & Warning System, a local alerting system that provides emergency and life-saving information to the public through mobile phones, radio, and television to notify the public and Law Enforcement will respond accordingly (Brown, pers. comm., 2021).

The nearest evacuation shelters to the project area include the following (City of South Lake Tahoe 2021, Placer County 2015):

- ▶ Noel Porter Retreat Center, Tahoe City, 10 miles north of the project area;
- ▶ Fairway Community Center, Tahoe City, 11 miles north of the project area;
- ▶ Tahoe Lake Elementary School, Tahoe City, 11.5 miles north of the project area;
- ▶ South Tahoe High School, South Lake Tahoe, 16 miles south of the project area; and
- ▶ South Tahoe Middle School, South Lake Tahoe, 18 miles south of the project area.

A description of the local plans for emergency preparedness in El Dorado and Placer counties is provided below.

El Dorado County Local Hazard Mitigation Plan

The purpose of the *El Dorado County Local Hazard Mitigation Plan* (LHMP) is to reduce or eliminate long-term risk to people and property from natural hazards and their effects in Placer County (El Dorado County 2018). The plan includes strategies, in the form of goals and actions, which the county and participating jurisdictions will use to decrease vulnerability and increase resiliency and sustainability. Under the LHMP, the County is responsible for implementing actions and programs that would help reduce wildfire hazards including, but not limited to, public education, defensible space programs, large strategic fuel breaks, and fuel breaks in the wildland urban interface (WUI).

The LHMP also summarizes the systems and procedures established to protect its residents and visitors to plan for, avoid, and respond to a hazard event including those associated with floods and wildfires. This includes pre-disaster public awareness and education information. Specific warning and evacuation systems and procedures include information relative to warning systems, Code Red alert system, dam protocols, evacuation recommendations, and sheltering in place.

Placer Operational Area East Side Emergency Evacuation Plan

Although the project area is located in El Dorado County, its proximity to Placer County warrants summarizing the *Placer Operational Area East Side Emergency Evacuation Plan* (Placer County 2015), which could influence evacuation of the project area and vicinity. This plan was developed to increase preparedness and facilitate the efficient and rapid evacuation of threatened communities in the far eastern end of the county in the event of an emergency, most

likely a forest fire or flood. The plan provides details regarding evacuation alerts, evacuation emergency medical services and public information, traffic control, transportation, communication, and animal services. Interstate 80 (I-80) and State Routes (SR) 28, 89, and 267 comprise the major evacuation routes in eastern Placer County.

FIRE PROTECTION AND EMERGENCY SERVICES

Meeks Bay Fire Protection District

The Meeks Bay area is served by Meeks Bay Fire Protection District (MBFPD), which provides service to an area that covers 14 square miles. The service area contains a mix of residential, recreational, and commercial properties. The MBFPD service area includes extensive state park lands (approximately 840 acres) and federal lands (approximately 1,240 acres) (NTFPD and MBFPD 2018). Station 67 is located directly adjacent to the project area and is staffed with one fire captain and one firefighter/paramedic at all times. MBFPD also includes Station 68, which is an unstaffed station located in Tahoma that stores a water tender. The project area includes a fire hydrant located near the entrance of the Meeks Bay Resort.

MBFPD Station 67 is located on SR 89, adjacent to Meeks Bay Campground and Meeks Bay Resort. The station has one Type 1 fire engine, one rescue truck, and one ambulance. MBFPD has a contract with North Tahoe Fire Protection District (NTFPD) for NTFPD to provide a full-time chief officer and management of MBFPD's firefighters and staff for fire protection, training, and administrative duties.

From 2017-2019, MBFPD responded to an average annual 227 emergency incidents (MBFPD and NTFPD 2020). MBFPD also provided 2017-2020 response data for emergency calls within the shoreline areas of the MBFPD and NTFPD service areas. A summary of locations of these emergency calls is provided in Table 3.10-2 and a summary of the types of calls that were received is provided in Table 3.10-3. The majority of emergency services provided are related to medical emergencies (see Table 3.10-3).

Table 3.10-2 General Locations of Emergencies near the Shoreline Area¹ from Emerald Bay to Kings Beach (2017-2020)

General Area (Reported Zip Code)	2017		2018		2019		2020	
	# of Emergency Calls	Proportion of Calls	# of Emergency Calls	Proportion of Calls	# of Emergency Calls	Proportion of Calls	# of Emergency Calls	Proportion of Calls
Carnelian Bay (96140)	1	6%	1	3%	6	12%	2	4%
Tahoma to Tahoe Pines (96141)	3	18%	7	18%	6	12%	3	6%
Tahoma to Emerald Bay (96142) (includes Meeks Bay)	2	12%	4	10%	6	12%	5	9%
Kings Beach (96143)	3	18%	17	43%	14	28%	25	46%
Tahoe City to Dollar Point (96145)	6	35%	5	13%	11	22%	11	20%
Olympic Valley to Alpine Meadows (96146)	1	6%	0	0%	0	0%	1	2%
Tahoe Vista to Kings Beach (96148)	1	6%	5	13%	5	10%	5	9%
Emerald Bay to South Lake Tahoe (961540)	0	0%	1	3%	2	4%	2	4%
Total	17	100%	40	100%	50	100%	54	100%

¹ This table includes areas within the MBFPD and NTFPD service areas limited to the lake and beach, dock, or marina areas.

Source: McNamara, pers. comm., 2020; compiled by Ascent Environmental in 2021

The area identified as "Tahoma to Emerald Bay" in Table 3.10-2, includes Meeks Bay. From 2017-2020 this area was the source of 9 percent to 12 percent of emergency calls near the shoreline area that were responded to by MBFPD and NTFPD. Of the emergency calls in this area from 2017-2020, four to six calls per year (7 to 12 percent of emergencies) were on the lake (i.e., lake-based) and one to three calls per year (2 to 6 percent of emergencies) were related to fire (see Table 3.10-3).

Table 3.10-3 Emergency Response Data for Shoreline Area¹ from Emerald Bay to Kings Beach (2017-2020)

Type of Emergency Call ¹	2017		2018		2019		2020	
	# of Emergency Calls by Type	Proportion of Total Emergency Calls	# of Emergency Calls by Type	Proportion of Total Emergency Calls	# of Emergency Calls by Type	Proportion of Total Emergency Calls	# of Emergency Calls by Type	Proportion of Total Emergency Calls
Lake-based Emergency ²	0	0.0%	4	10%	6	12%	4	7%
Emergency Medical Services	14	82%	31	78%	34	68%	32	59%
Motor Vehicle Accident	1	6%	0	0.0%	1	2%	2	4%
Actual or Perceived Fire ³	0	0.0%	0	0.0%	3	6%	1	2%
Ordinance Violation ⁴	0	0.0%	3	8%	4	8%	10	19%
Other ⁵	2	12%	2	5%	2	4%	5	9%
Total	17	100.0%	40	100.0%	50	100.0%	54	100.0%

¹ This table includes areas within the MBFPD and NTFPD service areas limited to the lake and beach, dock, or marina areas.

² These calls are primarily related to water rescues. In 2019 and 2020, each year had one of the lake-based emergencies consisting of a water vehicle fire. These calls required assistance or response from other agencies.

³ Fire calls were related to dumpster/receptacle fire, cooking fire, warning of smoke, or authorized controlled burn.

⁴ Chief McNamara indicated that the ordinance violations were typically related to recreational fires during periods subject to burn bans (McNamara, pers. comm., 2021a).

⁵ Other calls included false alarms, assisting persons with mobility issues, and lock-ins/lock-outs.

Source: McNamara, pers. comm., 2020; compiled by Ascent Environmental in 2021

North Tahoe Fire Protection District

NTFPD is the sole ambulance and advanced level paramedic provider in both El Dorado County and Placer County throughout the north and west shore areas of the Tahoe Basin. NTFPD's 70 uniformed and support personnel protects an area of 32 square miles on the north and west shores of Lake Tahoe (NTFPD 2021). NTFPD also responds to all fire, rescue, emergency medical, hazardous material emergencies that occur or are brought to shore from Lake Tahoe in the north and west shore areas (MBFPD and NTFPD 2020).

From 2017 through 2019, NTFPD responded to an average annual 2,241 incidents (MBFPD and NTFPD 2020).

Tables 3.10-2 and 3.10-3 provide a summary of emergency calls in shoreline areas that MBFPD or NTFPD responded to from 2017-2020.

USDA Forest Service Wildland Fire Services

The USDA Forest Service has a fire station located next to the entrance to Meeks Bay Resort. This station is staffed seasonally and provides wildland fire response for the west and north shore areas. When in operation, the station could provide fire response to the project area, but all other incidents are responded to by local police and emergency response (Sibr, pers. comm., 2021).

WATERBORNE SAFETY AND EMERGENCY RESPONSE

The region's fire agencies have developed a comprehensive system for sharing resources. Regional fire agencies rely on mutual and automatic aid agreements for major structure fires, other higher risk incidents, and during periods of high incident activity. Other agencies, including law enforcement, also provide support for emergencies at Meeks Bay.

When needed, MBFPD receives mutual aid for emergency services on land and in the lake from several nearby agencies. Tahoe Douglas Fire Protection District (TDFPD) and North Lake Tahoe Fire Protection District provide the only emergency boats with firefighting and water rescue capability (NLTFPD 2021, TDFPD 2021). South Lake Tahoe Fire Department and North Lake Tahoe Fire Protection District provide emergency boats with emergency medical/water rescue. The U.S. Coast Guard, El Dorado County Sheriff, Placer County Sheriff, and Washoe County

also provide law enforcement boats and water rescue with their primary responsibility being law enforcement/search and rescue (McNamara, pers. comm., 2021a).

The U.S. Coast Guard is the overall search and rescue lead on Lake Tahoe, with the U.S. Coast Guard Station Lake Tahoe located at 2500 Lake Forest Road. The U.S. Coast Guard also has resources from Sacramento and the Bay Area to respond to any and all emergencies and large environmental spills. The U.S. Coast Guard is operational year-round and has two 29-foot patrol boats that regularly conduct patrols and respond to emergencies. They operate 24 hours per day, seven days a week. The mission of the Tahoe station is search and rescue only. All environmental spill responses would be coordinated through the U.S. Coast Guard's National Response Center (Bieber, pers. comm., 2018).

The request for any marine resource could come through a number of agencies depending on how the call was routed through the public safety answer point that received the initial 911 call. As Lake Tahoe is a large area with no real landmarks except the shore or GPS coordinates, an incident may start with one resource and then involve other agencies based upon need, jurisdiction, response zone or location. Many lake-based incidents are also reported over USCG maritime radio systems as well and not necessarily 911 or cellular 911. So, often USCG might be the first agency to be made aware of the incident (McNamara, pers. comm., 2021b).

For incidents where MBFPD staff are on scene or while enroute and recognize the need for additional resources (including fire/rescue/law boats), they would request the resource through the MBFPD Emergency Command Center (i.e., Grass Valley ECC). The MBFPD communications plan mandates that their requests go through a single point resource ordering process through the Grass Valley ECC (McNamara, pers. comm., 2021b).

From 2018-2020, MBFPD responded to 14 incidents that utilized a boat from other fire agencies for lake-based emergencies (see Table 3.10-2). The response times from these other agencies are often a minimum of 1 hour due to the location of their boats (McNamara, pers. comm., 2020). The nearest emergency boat with fire response capabilities is docked at Zephyr Cove pier, approximately 9 miles southeast of Meeks Bay. The El Dorado County sheriff boat, City of South Lake Tahoe police department boat, and City of South Lake Tahoe Fire Rescue emergency boat are located at Tahoe Keys, approximately 9 miles southeast of Meeks Bay. Any emergency boat on the lake could respond depending on which one is closest to the incident.

LAW ENFORCEMENT

Law enforcement near the project area is provided at the federal, state, county, and city levels. At the community level, law enforcement and protection services are provided by the El Dorado County Sheriff's Office. In addition to local law enforcement agencies, the project area is served by USDA Forest Service law enforcement personnel.

The El Dorado County Sheriff has a dedicated deputy assigned to the west shore portion of El Dorado County four days a week but patrol deputies from the south shore supplement to provide around-the-clock coverage. On holidays or special events, more personnel is added as the situation dictates (Brown, pers. comm., 2021).

Waterborne Safety and Law Enforcement

Eight government agencies share law enforcement and emergency response duties on Lake Tahoe. Local agencies that patrol the lake include:

- ▶ U.S. Coast Guard: USCG has one station on Lake Tahoe located just east of the Lake Forest Boat Ramp and approximately 10.5 miles from Meeks Bay. USCG Station Lake Tahoe is a small boat station that is operational year-round. The station utilizes two 25-foot Defender Class Boats to provide maritime law enforcement and search and rescue services to boaters on Lake Tahoe. USCG Station Lake Tahoe does not provide fire, emergency medical, or hazardous material response (MBFPD and NTFPD 2020).
- ▶ El Dorado County Sheriff: The El Dorado County Sheriff provides law enforcement services within the El Dorado County portion of the region, from the California-Nevada state line to Tahoma. Rescue equipment consists of jet skis and boats, which are housed at the Tahoe Keys Marina. They are one of the only operations on the south shore that operate 24 hours per day (Almos, pers. comm., 2018).

- ▶ Placer County Sheriff: The Placer County Sheriff provides law enforcement services on the northwest corner of the lake, from Stateline Point south to Tahoma. They have a patrol boat on the lake that is staffed from mid-May through mid-September (Thursday-Sunday). The boat operates out of the Sierra Boat Company (Baxter, pers. comm., 2018).
- ▶ South Lake Tahoe Police Department: The South Lake Tahoe Police Department provides law enforcement services in the City of South Lake Tahoe, from Stateline on the east to Emerald Bay on the west. They have one boat for use during lake-related emergencies (Dougherty, pers. comm., 2018).
- ▶ Douglas County Sheriff: The Douglas County Sheriff provides law enforcement services in Douglas County, from Stateline on the south to Glenbrook on the north. They operate one boat out of a slip in the Tahoe Keys during the months of May through October. In the offseason, the boat is stored in a warehouse off of the water (Skibinski, pers. comm., 2018).
- ▶ Washoe County Sheriff: The Washoe County Sheriff provides law enforcement services in Washoe County, from Stateline Point south to Glenbrook. They have one boat for use during lake-related emergencies, which is manned on weekends from Memorial Day through October 1. The boat operates out of the Thunderbird Lodge Bello, pers. comm., 2018).
- ▶ Lahontan Regional Water Quality Control Board (Lahontan RWQCB): Lahontan RWQCB is responsible for investigating the release of hazardous materials on the California side of Lake Tahoe.

The Sheriff's Offices also have other resources to respond to emergencies such as County Search and Rescue Teams and Air Search and Rescue.

WILDLAND FIRE HAZARDS

The California Department of Forestry and Fire Protection (CAL FIRE) has mapped fire hazard severity zones (FHSZs) for the entire state, including the Tahoe region. FHSZ delineations are based on an evaluation of fuels, fire history, terrain, housing density, and occurrence of severe fire weather. They are intended to identify areas where urban conflagrations could result in catastrophic losses. FHSZs are categorized as: Moderate, High, and Very High, which are defined as follows (CAL FIRE 2007):

- ▶ Moderate: Wildland areas supporting areas of typically low fire frequency and relatively modest fire behavior or developed/urbanized areas with a very high density of non-burnable surfaces including roadways, irrigated lawn/parks, and low total vegetation cover (greater than 30 percent) that is highly fragmented and low in flammability (e.g., irrigated, manicured, managed vegetation).
- ▶ High: Wildland areas that support medium to high hazard fire behavior and roughly average burn probabilities or developed/urban areas typically with moderate vegetation cover and more limited non-burnable cover. Vegetation cover typically ranges from 30 to 50 percent and is only partially fragmented.
- ▶ Very High: Wildland areas that support high to extreme fire behavior or developed/urban areas with high vegetation density (greater than 70 percent cover) and associated high fuel continuity.

The majority of the project area, excluding the beach area and area containing the marina, is located within a Very High FHSZ (CAL FIRE 2009).

Ongoing Forest Management

The isolated nature of the project area and surrounding communities with limited access could present challenges to fire suppression efforts when they are needed. Land management and fire protection agencies are addressing this problem by completing fuels reduction projects around most of the at-risk communities and by assisting with the creation of defensible space. Other efforts to reduce fire hazards include defensible space evaluations required as part of the building permit process, residential curbside chipping programs, and private property fuels reduction projects (TFFT 2015). The *Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy* (Fuel Reduction Strategy) identifies ongoing forest management planning and implementation of fuel reduction projects.

Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy for the Lake Tahoe Region

Sixteen local, state, and federal agencies collaboratively plan and implement fuels reduction treatments to protect Lake Tahoe's California and Nevada communities and environment. In 2007, the Fuel Reduction Strategy was developed from combining all existing fire plans for the various agencies that had been developed within the Tahoe Basin, incorporating by reference the Community Wildfire Protection Plan (CWPP) for the California portion of the Lake Tahoe Basin. The Fuel Reduction Strategy facilitates the strategic decisions that must be made by land management, fire, and regulatory agencies to reduce the probability of a catastrophic fire in the Basin.

The Tahoe Fire and Fuels Team (TFFT) was formed in 2008 to implement the Fuel Reduction Strategy and consists of representatives from 22 fire districts, land management agencies, universities, and regulatory agencies with a role in managing wildfire fuel in the Lake Tahoe Basin. The TFFT partners have worked for years to create fire-adapted communities, restore forest resilience, and achieve other objectives consistent with the Fuel Reduction Strategy (CAL FIRE et al. 2014, 2017) and the CWPP. TFFT partners have treated 57,000 acres in the WUI since 2008. These multiple-benefit thinning and prescribed fire treatments connect to form continuous areas where fire behavior is reduced and forest health is improved (California Tahoe Conservancy 2019). The 2017 update to the Fuel Reduction Strategy included incorporating landscape-scale fuels reduction and restoration plans into the 2014 Strategy (CAL FIRE et al. 2017). The USDA Forest Service, California Department of Parks and Recreation (State Parks), California Tahoe Conservancy, and Liberty Utilities have ongoing and planned fuels reduction and defensible space projects and programs in the vicinity of the project area. These projects and programs include:

- ▶ California State Parks WUI Fuel Reduction and Prescribed Fire Program,
- ▶ Urban Forest Defense Zone Fuels Reduction and Healthy Forest Project,
- ▶ Lake Tahoe West Restoration Project,
- ▶ Liberty Utilities Resilience Corridors Project,
- ▶ Meeks Creek Meadow Ecosystem Restoration Project,
- ▶ Tahoe Program Timberland EIR, and
- ▶ West Shore Wildland Urban Interface (WUI) Hazardous Fuels Reduction and Forest Health Project.

3.10.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Methods for the impact analysis included a review of applicable laws and regulations pertaining to public safety, hazards, and hazardous materials generally, wildfire risk, and as applicable to the action alternatives and the project area. Within this framework, potential for navigational hazards, emergency response capacity, known locations of hazardous materials, and the potential for other safety or hazardous conditions were reviewed based on regulations, planning documents, goals, and policies. The impact analysis considered potential for changes in the nature, extent, or presence of hazardous conditions to occur as a result of construction and operation of the project alternatives, including increased potential for exposure to hazardous materials and conditions and increased boating accidents due to increased boating activity and navigation hazards. Compliance with applicable federal, state, and local health and safety laws and regulations would generally protect the health and safety of the public.

Potential effects associated with the project alternatives would be temporary or permanent. Temporary impacts generally include effects associated with construction activities, including the transport, storage, and use of potentially hazardous chemicals and the potential to encounter hazardous wastes during construction. Permanent impacts generally include effects associated with increased navigational hazards in the bay, which could lead to increased accidents and a corresponding need for emergency services and access to the lake.

THRESHOLDS OF SIGNIFICANCE

The thresholds of significance were developed in consideration of the State CEQA Guidelines, TRPA Thresholds, TRPA Initial Environmental Checklist, LTBMU Forest Plan, and other applicable policies and regulations. Under NEPA the significance of an effect must consider the context and intensity of the environmental effect. The factors that are considered under NEPA to determine the context and intensity of its effects are encompassed by the thresholds of significance. An alternative would have a significant effect on public safety and hazards if it would:

- ▶ impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan;
- ▶ impair or result in a decrease in emergency access to the shoreline;
- ▶ create a substantial need within the region for new or altered public services related to fire protection, law enforcement and protection, or other emergency response services;
- ▶ result in a substantial increase in the risk for watercraft accidents;
- ▶ generate new human health and safety risks;
- ▶ involve a risk of the accidental release of hazardous substances;
- ▶ expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires;
- ▶ due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire; or
- ▶ expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

ISSUES NOT DISCUSSED FURTHER

The alternatives are not located within one-quarter mile of an existing or proposed school. The closest school to the project area is Tahoe Lake Elementary School, located over 9 miles to the north in Tahoe City. Implementation of the action alternatives would not emit or handle hazardous materials, substances, or wastes within one-quarter mile of an existing or proposed school.

The alternatives are not located close enough to a public airport or a private airstrip to create a conflict or safety hazard. The South Lake Tahoe Airport is located over 11 miles southeast of the project area. The project area is not within the designated approach or departure routes of any airports or airstrips. The location of the project area so far from the nearest public airstrip would not result in a safety hazard for people visiting or working at the project area.

These issues have been dismissed from further consideration in this EIS/EIS/EIR.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 3.10-1: Interfere with Implementation of an Adopted Emergency Response Plan or Emergency Evacuation Plan

Alternatives 1, 2, 3, and 4 would not include construction activities or any new facilities that would interfere with implementation of an adopted emergency response plan or emergency evacuation plan. Development and implementation of a traffic management plan would include measures to minimize traffic disruption and maintain emergency and evacuation access across Meeks Creek. Implementation of Alternatives 1 and 2 would not result in an increase in visitor capacity. Alternatives 3 and 4 would result in an increase in parking and Alternative 3 would increase the number of campsites. This increase in vehicles needing evacuation would not substantially reduce emergency evacuation times. The potential impact on interference with implementation of an adopted emergency response plan or emergency evacuation plan from implementation of Alternatives 1, 2, and 3 would be less than significant.

The No Action Alternative would result in no change to access, visitor capacity, or land uses in the project area. Emergency evacuation and implementation of emergency plans would continue as they do under existing conditions. This would be a less-than-significant impact related to interference with implementation of an adopted emergency response plan or emergency evacuation plan.

No Action Alternative

With the No Action Alternative, there would be no change to the project area and therefore no conflict with emergency plans would result. Demand for emergency response and response operations would continue as they do under existing conditions. This impact would be less than significant.

Alternative 1: Restoration with Boating Pier

Implementation of Alternative 1 would require access by workers and heavy equipment, delivery and stockpiling of materials, demolition and removal of debris, removal and reconstruction of the SR 89 bridge, and other operations that, depending on the exact timing and nature of construction activities, could limit vehicular access on roads adjacent to the project area. However, most construction activities and staging areas would be located within the project area and would not be substantial (e.g., would not require substantial numbers of large earthmovers or excavators); thus, impairment of emergency routes, traffic delays, or potentially preventing access to calls for service or delays in evacuation via routes identified in the Placer Operational Area Eastside Emergency Evacuation Plan would be minimal.

Replacement of the SR 89 bridge would involve demolition of the existing approximately 40-foot-long bridge, however access for emergency vehicles or evacuation of vehicles would be maintained during construction to comply with the resource protection measures established for the project, and a traffic management plan would be developed and implemented to minimize traffic disruption during construction and maintain continual emergency access across Meeks Creek (see Appendix A, "Resource Protection Measures"). The traffic management plan would identify strategies to maintain access across the bridge such as constructing the trail bridge prior to any potential closure of the SR 89 bridge and diverting emergency vehicles across the trail bridge, requiring construction work (including demolition) to only occur along one lane of the bridge at one time, or constructing a temporary bridge upstream or downstream of the existing bridge (see Section 2.5.2, "State Route 89 Bridge Replacement"). Although the construction duration for the bridge replacement is unknown at this time, the bridge is relatively short (approximately 40 feet long, which is roughly equal to the length of three or four vehicles) resulting in only a short section of SR 89 being closed at one time. Emergency response and evacuation capacity across the bridge would be diminished during construction of the bridge replacement; however, because the length of the section of one lane of the roadway that would be closed would be approximately 40 feet, the bridge replacement construction would not result in interference with emergency response and evacuation that would result in a substantial delay. Because of the short-term nature of the construction activities and access near the project area would be maintained during construction, construction activities would not interfere with use of evacuation centers identified in the Placer Operational Area Eastside Emergency Evacuation Plan and City of South Lake Tahoe evacuation plans, with use of SR

89 as an evacuation route, or implementation of evacuation communication procedures and systems. Additionally, the project would support implementation of components of the SR 89 Corridor Management Plan (i.e., multi-use paths through the project area and support for transit), which addresses corridor issues, like emergency access and evacuation, through administering visitor management strategies that would help improve traffic flow for evacuation needs and minimize delays for emergency response.

Within the project area, circulation patterns would change on the site, but would not be substantially different from existing circulation and in some ways circulation throughout the project area would be improved and more efficient. Upland features would comport with existing plans during final planning stages. As discussed under Impact 3.1-1 in Section 3.1, "Recreation," implementation of this alternative would not result in an increase in visitor capacity, thus, there would not be an anticipated change in people traveling to the project area as a result of Alternative 1. Thus, Alternative 1 would have a less-than-significant impact related to interference with implementation of an adopted emergency response plan or emergency evacuation plan.

Alternative 2: Restoration with Pedestrian Pier

Implementation of Alternative 2 would result in similar construction activities as Alternative 1. For the reasons described above, construction of this alternative would not interfere with implementation of an adopted emergency response plan or emergency evacuation plan. Alternative 2 would result in similar improvements in circulation patterns within the project area as Alternative 1 and would not result in an increase in visitor capacity and, therefore, there would be no change in the number people traveling to the project area as a result of this alternative. For the reasons described above for Alternative 1, the impact related to interference with implementation of an adopted emergency response plan or emergency evacuation plan from implementation of Alternative 2 would be less than significant.

Alternative 3: Restoration with No Pier

Implementation of Alternative 3 would result in similar construction activities as Alternative 1, which would not interfere with implementation of an adopted emergency response plan or emergency evacuation plan for the reasons described above. Alternative 3 would result in similar improvements in circulation patterns within the project area as Alternative 1. Implementation of Alternative 3 would result in an increase in visitor capacity allowing an increase in the number of vehicles traveling to the project area. Alternative 3 would result in an increase of up to 14 parking spaces and up to 22 campsites in the project area and would result in additional vehicles that would require evacuation from the project area in the event of an emergency. As described in the *SR 89 Corridor Management Plan Existing Conditions Summary Report*, annual visitors to the portion of the corridor from Sugar Pine Point State Park to Emerald Bay was estimated at approximately 962,430 visitors (note that this number represents 2016 visitation data for the Sugar Pine Point State Park segment of the SR 89 corridor and 2017 visitation data for the Emerald Bay through Meeks Bay portion of the corridor) (TRPA et al. 2019). The increase in visitors associated with 14 parking spaces and 22 campsites associated with Alternative 3 would be a very small proportion of the existing visitors traveling near the project area.

The evacuation routes in the vicinity of the project area are limited to two routes; however, because the increase in vehicles under Alternative 3 needing evacuation would be very small (estimated to be 36 vehicles; an 8 percent increase in the number of vehicles at the project area at one time under existing conditions during peak periods), Alternative 3 would not substantially reduce emergency evacuation times or interfere with implementation of an emergency evacuation plan over existing conditions. For these reasons, and those described above for Alternative 1 related to construction activities and circulation, the impact related to interference with implementation of an adopted emergency response plan or emergency evacuation plan from implementation of Alternative 3 would be less than significant.

Alternative 4: Preferred Alternative

Alternative 4 would result in similar construction activities as Alternative 1, which would not interfere with implementation of an adopted emergency response plan or emergency evacuation plan for the reasons described above. Alternative 4 would also result in similar improvements in circulation patterns within the project area as Alternative 1. The expanded parking area proposed in Alternative 4 would result in an increase in visitor capacity of 14

parking spaces, allowing an increase in the number of vehicles traveling to the project area. The increase in visitors associated with 14 parking spaces (i.e., up to 14 vehicles) would be a very small proportion of the existing visitors traveling near the project area (see discussion of corridor visitation under Alternative 3).

The evacuation routes in the vicinity of the project area are limited to two routes. Because the increase in vehicles under Alternative 4 needing evacuation is very small (estimated to be 14 vehicles; a 3 percent increase in the number of vehicles at the project area at one time compared to existing conditions during peak periods), this alternative would not substantially reduce emergency evacuation times or interfere with implementation of an emergency evacuation plan as compared to existing conditions. For these reasons, and those described above for Alternative 1 related to construction activities and circulation, the impact related to interference with implementation of an adopted emergency response plan or emergency evacuation plan from implementation of Alternative 4 would be less than significant.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.10-2: Emergency Access to and from Lake Tahoe

The boating pier included in Alternative 1 would include a mooring location for an emergency services boat that would retain emergency access to and from the lake similar to existing conditions under which an emergency services boat could be launched at the boat ramp. Alternative 1 would also improve circulation in the project area. For all action alternatives, removal of the marina and boat ramp would reduce emergency access to and from the lake during periods of high lake levels. However, due to its protected location, Meeks Bay would continue to provide a safe harbor from wind or storm conditions. During emergencies, boats could beach directly on the shore to unload passengers. Implementation of Alternatives 2, 3, and 4 would result in similar circulation improvements that would enhance emergency access through the project area to and from the lake. Because of improved upland circulation, the impact on emergency access to and from the lake from Alternatives 1, 2, 3, and 4 would be less than significant.

Because the No Action Alternative would result in no changes to the project area. Emergency access to and from the lake could continue to function as it does under existing conditions. This would be a less-than-significant impact related to emergency access to and from Lake Tahoe.

No Action Alternative

With the No Action Alternative, there would be no change to the project area. Emergency access to and from Lake Tahoe would remain the same as existing conditions. This impact would be less than significant.

Alternative 1: Restoration with Boating Pier

Alternative 1 would involve removal of the marina and boat ramp as part of restoration of Meeks Creek. The marina and boat ramp provide an opportunity for emergency responders to easily access the lake from the shoreline or for responders to easily access the shoreline from the lake. However, in recent years the marina and boat ramp were only open in 2010-2015, during periods of high lake levels. Removal of the marina could reduce emergency access (by removing the boat launch), but this would only be the case for years when the marina is operational. Also, the marina could provide a safe harbor for motorized boaters in the event of sudden storm events; however, these are typically during winter when there are fewer boaters on the lake. Access to safe harbor would also only be a benefit during operational years (i.e., high lake level) and could prove problematic if boaters are not aware of the marina's closure in a given year. There have been no documented incidents of boats accessing the Meeks Marina as a safe harbor during a sudden storm. Meeks Bay, due to its protected location, would continue to provide a safe harbor from wind or storm conditions. During emergencies, boats could beach directly on the shore to unload passengers. For these reasons, the importance of the marina as a safe harbor is limited.

Implementation of Alternative 1 would result in circulation improvements by reducing the number of internal roadways near the entrance and day-use area at Meeks Bay Resort. Existing roadways may also be realigned and/or

widened in select locations to improve access for transit. These changes in the project area would result in more efficient access in the project area for emergency responders to access the lake.

In addition, TRPA and emergency service providers along the west shore have initiated a planning process to identify a public safety boat access point on the west shore of Lake Tahoe. Through this process, emergency service providers are considering opportunities and constraints for various locations to identify an ideal site to provide a public safety pier along the west shore, which would further improve emergency access to and from the lake in the vicinity of Meeks Bay.

The boating pier included in Alternative 1 would include a mooring location to dock an emergency services boat. Although this alternative would result in removal of the marina and boat ramp, a potential access point to and from the lake for emergency responders during high lake levels, the addition of a boating pier with the emergency services boat would retain emergency access to and from the lake by providing a readily available emergency boat that could be launched anytime during the year, even during periods of low lake levels. Thus, this alternative would result in a less-than-significant impact related to emergency access to and from the lake.

Alternative 2: Restoration with Pedestrian Pier

Alternative 2 would involve removal of the marina and boat ramp as part of restoration of Meeks Creek, resulting in similar loss of access to and from the lake for emergency responders to that described above for Alternative 1. Additionally, like under Alternative 1, this alternative would result in removal of an area that could provide safe harbor to motorized boaters during sudden storm events. However, as described for Alternative 1, above, the marina provides limited benefit as a safe harbor.

Implementation of Alternative 2 would result in similar circulation improvements that would improve emergency access through the project area to and from the lake similar to that described above for Alternative 1. Alternative 2 would result in a 100-foot-long pedestrian pier.

Although removal of the marina and boat ramp would reduce emergency access to and from the lake, it is currently only accessible during periods of high lake levels. Meeks Bay, due to its protected location, would continue to provide a safe harbor from wind or storm conditions. During emergencies, boats could beach directly on the shore to unload passengers.

Emergency access to the lake would be maintained on the west shore, including the planning process described above under Alternative 1 for a public safety boat access point on the west shore, and because of upland circulation improvements, the impact on emergency access to and from the lake from Alternative 2 would be less than significant.

Alternative 3: Restoration with No Pier

Alternative 3 would result in the same changes related to removal of the marina and boat ramp and associated loss of a ramp that could be used by emergency providers similar to Alternatives 1 and 2. Additionally, Alternative 3 would result in similar circulation improvements that would improve emergency access through the project area to and from the lake similar to that described above for Alternative 1. For the same reasons described above for Alternatives 1 and 2, emergency access to the lake would be maintained on the west shore, and because of upland circulation improvements, the impact on emergency access to and from the lake from Alternative 3 would be less than significant.

Alternative 4: Preferred Alternative

Alternative 4 would result in the same changes related to removal of the marina and boat ramp and associated loss of a ramp that could be used by emergency providers similar to Alternatives 1 and 2. Alternative 4 would result in circulation improvements that would improve emergency access through the project area to and from the lake. For the same reasons described above for Alternatives 1 and 2, emergency access to the lake would be maintained on the west shore, and because of upland circulation improvements, the impact on emergency access to and from the lake from Alternative 4 would be less than significant.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.10-3: Increased Demand for Emergency Response Resources

The action alternatives would include a number of enhancements to safety (e.g., additional designated swim area, removal of grills in the day-use areas). Alternatives 1 and 2 would not increase visitor capacity that could potentially increase demand for emergency services. Alternatives 3 and 4 would result in a minor increase in visitor capacity that could be serviced by existing emergency service resources. Alternatives 1, 2, 3, and 4 would result in a less-than-significant impact related to demand for emergency services.

Because the No Action Alternative would result in no changes to the project area, there would be no change in demand for emergency response resources and no impact related to demand for emergency resources.

No Action Alternative

With the No Action Alternative, there would be no change to the project area; therefore, there would be no change in demand for emergency resources. Thus, there would be no impact.

Alternative 1: Restoration with Boating Pier

Alternative 1 would result in changes in the project area that would include removal of the marina and boat ramp and restoration of Meeks Creek, circulation improvements, campground improvements, expanding the day-use areas and removing grills from these areas, utility improvements (including potentially undergrounding electric lines, if feasible), and a boating pier. Capacity for recreational fires would not change and would be subject to seasonal fire restrictions during periods of high fire risk. Because the number of parking spaces in the project area would be retained and the number of campsites could decrease by four sites or increase up to two sites (up to eight visitors could be accommodated), implementation of this alternative would result in a minimal increase in capacity for visitors or an associated increase in visitors to the project area.

Although the boating pier would attract boats to Meeks Bay, this alternative would remove the marina and boat ramp. The increases in motorized boating associated with the boating pier would generally be offset by a reduction in motorized boats and personal watercraft devices resulting from removal of the marina and boat ramp. As described in Table 3.1-4 in Section 3.1, "Recreation," approximately 1,970 boats are launched from the Meeks Bay Marina per year, which equates to approximately 3,940 boat trips through Meeks Bay per year, assuming two trips per launch (i.e., one trip leaving the marina and one returning). Under this alternative, a boat pier would be constructed. Even though it is not possible to know how many boats would access the new boating pier, based on anecdotal observations at other public piers around Lake Tahoe, it is assumed that an average of five to 10 boats would access the pier per day during the approximately 100-day boating season that generally lasts from Memorial Day weekend through Labor Day weekend (California State Parks et al. 2018). This would result in approximately 500–1,000 boats accessing the pier over the season and a total of 1,000–2,000 boat trips (assuming one trip to the pier and one trip from the pier for each boat accessing the pier). Compared to baseline conditions, implementing Alternative 1 would reduce boat trips by approximately 1,940–2,940 boat trips per year. To be conservative, this analysis assumes that implementing Alternative 1 would result in approximately 2,000 boat trips per year, which is 1,500 fewer trips than under baseline conditions with the operation of the marina. Other incidental boat trips, such as boats beaching outside of swim areas or boat anchoring in Meeks Bay, would be unchanged under all the alternatives. Thus, the pier would not substantially increase boating activity at Meeks Bay.

Alternative 1 would continue to include designated swim areas that would be demarcated by buoys, and motorized boats would not be allowed to access the swim area. This alternative would not result in a substantial change in conflicts between these recreation users because of reductions in motorized boating in Meeks Bay and protections for swimmers and non-motorized watercraft would be in place (e.g., removal of the marina and boat ramp, designated swim areas, no-wake zone requirements). Thus, there would not be an increase in demand for emergency response resources related to the proposed boating pier.

The MBFPD and El Dorado County Sheriff's Office have limited capacity. However, as described above under the "Fire Protection and Emergency Services" and "Law Enforcement" sections, these emergency response providers operate under mutual aid agreements and coordinate closely so that sufficient emergency response capabilities are provided during emergencies, including fire and law enforcement boats on the lake. Because implementation of Alternative 1

would not substantially increase visitor capacity resulting in a minimal increase in visitation (up to eight visitors per day) to the area, this alternative would result in a less-than-significant impact related to demand for emergency response resources.

Alternative 2: Restoration with Pedestrian Pier

Alternative 2 would result in similar construction activities and project area improvements, including those related to circulation, utilities, the day-use areas, and a pier as Alternative 1. Capacity for recreational fires would not change and would be subject to seasonal fire restrictions during periods of high fire risk. However, because the number of parking spaces and campsites in the project area would be retained, implementation of this alternative would not result in an increase in capacity for visitors or an associated increase in visitors to the project area.

Alternative 2 would remove the marina and boat ramp and would not provide any additional facilities that would attract boaters to Meeks Bay. Thus, there would be an overall reduction in motorized boating in Meeks Bay. Most of the bay is located within the 600-foot no-wake zone and designated swim areas demarcated by buoys would continue to be implemented with this alternative. The no-wake zone and designated swim areas further minimize potential conflicts between swimmers and motorized boats. Because of the designated swim area, requirements of the no-wake zone, and because the removal of the marina and boat ramp would reduce motorized boating activity in Meeks Bay, this alternative would reduce the potential for conflicts between motorized boaters and nonmotorized watercraft and swimmers.

The MBFPD and El Dorado County Sheriff's Office have limited capacity. However, as described above under the "Fire Protection and Emergency Services" and "Law Enforcement" sections, these emergency response providers operate under mutual aid agreements and coordinate closely so that sufficient emergency response capabilities are provided during emergencies, including fire and law enforcement boats on the lake.

Because implementation of Alternative 2 would not increase visitor capacity resulting in an associated increase in visitation to the area, and because there would continue to be designated swim areas, and motorized boating activity would decrease in Meeks Bay, this alternative would not increase demand for emergency response resources. This impact would be less than significant.

Alternative 3: Restoration with No Pier

Alternative 3 would result in similar construction activities and project area improvements, including those related to circulation, utilities, and the day-use areas as Alternative 1. This alternative would also expand the campgrounds, adding up to 22 campsites, and would expand parking capacity, adding up to 14 spaces. These proposed changes would result in an estimated increase in up to 280 visitors per day during the busiest periods of the summer. Although capacity for recreational fires would slightly increase, recreational fires would be subject to seasonal fire restrictions during periods of high fire risk.

Based on the increase in daily visitors estimated in Table 3.1-9 in Section 3.1, "Recreation," the estimated annual increase in visitors to the project area would be approximately 27,910 visitors, which would be approximately 3 percent of the estimated annual visitors to the corridor (see Alternative 3 discussion under Impact 3.10-1). The calls for emergency services in the shoreline area containing the project area is relatively low (i.e., 2 to 6 calls per year from 2017-2020 in zip code 96142) and the average annual number of emergency incidents responded to by MBFPD in their service area from 2017-2019 was 227 incidents (an average of 76 incidents per year) (MBFPD and NTFPD 2020).

Based on visitation to the corridor as described above under Impact 3.10-1 and the average annual number of emergency incidents, the rate of incidents requiring emergency response per 1,000 visitors is estimated to be 0.08 incidents. Thus, the addition of an estimated 27,910 visitors for Alternative 3 would result in an estimated additional 2.2 incidents per year.

The Meeks Bay Fire Protection District indicated that an increase in the number of visitors at Meeks Bay would increase the potential for emergencies and call volume (McNamara, pers. comm., 2021a). The annual increase in visitors to the project area would be a small increase over the number of existing annual visitors to the corridor, the associated increase in demand for emergency response resources would not be substantial (estimated to be an additional 2.2 incidents per year) and would not render the current services inadequate.

The El Dorado County Sheriff's Office also indicated that the potential increase in the number of campsites in the project area would not result in an increase in demand such that additional patrol resources would be needed (Brown, pers. comm., 2021). This impact would be less than significant.

Alternative 4: Preferred Alternative

Alternative 4 would result in similar construction activities and project area improvements, including those related to circulation, utilities, and the day-use areas as Alternative 1. This alternative would also expand parking capacity, adding up to 14 spaces, resulting in an estimated increase in up to 190 visitors per day during the busiest periods of the summer.

Based on the increase in daily visitors estimated in Table 3.1-7 in Section 3.1, "Recreation," the estimated annual increase in visitors to the project area would be approximately 17,030 visitors, which would be approximately 2 percent of the estimated annual visitors to the corridor (see Alternative 3 discussion under Impact 3.10-1). As described in the discussion of Alternative 3 above, based on visitation to the corridor in 2016 and the average annual number of emergency incidents, the rate of incidents requiring emergency response per 1,000 visitors is estimated to be 0.08 incidents. Thus, the addition of an estimated 17,030 visitors for Alternative 4 would result in an estimated additional 1.4 incidents per year. The annual increase in visitors to the project area would be a small increase over the number of existing annual visitors to the corridor, the associated increase in demand for emergency response resources would not be substantial and would not render the current services inadequate. This impact would be less than significant.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.10-4: Navigational Hazards to Motorized and Nonmotorized Recreation

All action alternatives would decrease motorized boating traffic in Meeks Bay. The designated swim areas would continue to be included in all action alternatives, which would affect navigation for nonmotorized watercraft; however, these are a continuation of existing conditions. Alternatives 1 and 2 would include piers that could affect navigation, but because the piers would be located within the no-wake zone, there would not be a substantial change in navigation hazards or conflicts between recreation users. The impact from implementing Alternatives 1, 2, 3, and 4 on navigational hazards to motorized and nonmotorized boaters would be less than significant.

Because the No Action Alternative would result in no change to the project area, existing hazards associated with marina boat traffic would continue. There would be less-than-significant impact related to navigational hazards.

No Action Alternative

With the No Action Alternative, there would be no change to the project area; therefore, there would be no change in navigational hazards. Existing navigational hazards related to boat traffic associated with the marina would continue as it does under existing conditions. This impact would be less than significant.

Alternative 1: Restoration with Boating Pier

Implementation of Alternative 1 would result in removal of the marina and boat ramp and construction of a boating pier. The proposed 300-foot-long boating pier would be a new structure north of the Meeks Creek outlet that would attract boats to Meeks Bay.

Although the boating pier would attract boats to Meeks Bay, removal of the marina and boat ramp would reduce the number of boats traveling to and from the marina and boat ramp (the general travel route for boats going to and from the marina is shown on Figure 3.1-3 in Section 3.1, "Recreation"); thus, boating traffic in the bay would be shifted to the pier instead of the marina. The new pier would require nonmotorized watercraft to navigate around the end of the pier as they travel along the shoreline in Meeks Bay. Although there may be periods when nonmotorized watercraft could travel under the pier, the presence of motorized boats docked on the pier may limit this access. Nonmotorized watercraft may encounter motorized boats as they navigate around the pier; however, the 600-foot

no-wake zone is located approximately 260-390 feet beyond the end of the pier (depending on lake levels; see Figure 3.1-4) and motorized boats would be required to travel at 5 mph. By traveling at slow speeds, motorized boaters would have the ability to more easily see and travel around nonmotorized watercraft users and swimmers and would reduce wake, which would help to maintain the safety of swimmers and nonmotorized watercraft users.

Nonmotorized watercraft users would also be required to travel outside of the swim areas to the north and south of the new pier. The designated swim areas would be demarcated by buoys, and nonmotorized watercraft (e.g., kayaks and paddleboards) would not be allowed access to the swim area. The designated swim areas would not encompass the entire beach areas so that there would be sufficient room for paddlecraft to launch onto the lake outside of the swim areas. As described above for navigation around the pier, there would be ample space around the swim buoy areas within the no-wake zone allowing for safe navigation in the bay for nonmotorized watercraft.

Because the boating pier and designated swim area would be well within the no-wake zone that essentially encompass the entire bay and because the pier would not increase overall boating levels, the changes in navigation for nonmotorized watercraft and motorized watercraft would not result a substantial change in conflicts between these recreation users or substantially increase hazards for these recreation users. Thus, the impact from implementing Alternative 1 on navigational hazards to motorized and nonmotorized boaters would be less than significant.

Alternative 2: Restoration with Pedestrian Pier

As described in Alternative 1, a new pier and additional designated swim area would represent a potential new navigational hazard for motorized and nonmotorized boaters. However, with implementation of Alternative 2, the new pier would be 100 feet long and could not be used by motorized boaters; thus nonmotorized boaters would have more space to travel around the pier between the end of the pier and the no-wake zone boundary. The pedestrian pier would also not be an attractant for motorized boaters to Meeks Bay. With Alternative 2, the removal of the marina and installation of a pedestrian pier would reduce the number of motorized boats in the bay, removing navigational hazards between motorized and nonmotorized boaters. Alternative 2 would result in similar navigational hazards to nonmotorized watercraft users from the additional designated swim area as described above for Alternative 1.

For these reasons, Alternative 2 would result in a less-than-significant impact related to navigational hazards to motorized and nonmotorized boaters.

Alternative 3: Restoration with No Pier

Alternative 3 would result in a 30-foot-long paddlecraft launch at the south end of the project area. Because of the short length of the launch facility and location at the south end of the project area, the launch facility would not obstruct navigation or introduce a structure that would require navigation around it as nonmotorized watercraft travel around the bay. As described for Alternative 1, removal of the marina and boat ramp would reduce the number of boats traveling to and from the marina and boat ramp, thus removing navigational hazards between motorized and nonmotorized boaters. Alternative 3 would result in similar navigational hazards to nonmotorized watercraft users from the additional designated swim area as described above for Alternative 1. Alternative 3 would result in a less-than-significant impact related to navigational hazards to motorized and nonmotorized boaters.

Alternative 4: Preferred Alternative

As with Alternative 3, Alternative 4 would result in a 30-foot-long paddlecraft launch at the south end of the project area. Because of the short length of the launch facility and location at the south end of the project area, the launch facility would not obstruct navigation or introduce a structure that would require navigation around it as nonmotorized watercraft travel around the bay. As described for Alternative 1, removal of the marina and boat ramp would reduce the number of boats traveling to and from the marina and boat ramp, thus removing navigational hazards between motorized and nonmotorized boaters. Alternative 4 would result in similar navigational hazards to nonmotorized watercraft users from the additional designated swim area as described above for Alternative 1. Alternative 4 would result in a less-than-significant impact related to navigational hazards to motorized and nonmotorized boaters.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.10-5: Accidental Release of Hazardous Substances

Alternatives 1, 2, 3, and 4 would temporarily increase the regional transportation, use, storage and disposal of hazardous materials and petroleum products commonly used at construction sites (such as diesel fuel, lubricants, paints and solvents, and cement products), which could result in accidents or upset conditions in the project area that could create hazards to people and the environment. Operation and maintenance of these alternatives would result in continued use of the same types of hazardous materials that are currently used in the project area. With mandatory compliance with federal, state, and local regulatory requirements related to hazardous materials, implementation of BMPs, and testing of soils for hazardous materials prior to excavation, the potential for exposure of the public or environment to hazards resulting from routine use, storage, or transport of hazardous materials or from accidental release or upset would be reduced. This impact for Alternatives 1, 2, 3, and 4 would be less than significant.

Because the No Action Alternative would result in no change to the project area, there would be no impact related to the potential for new or different accidental release of hazardous substances.

No Action Alternative

With the No Action Alternative there would be no change to the project area; therefore, there would be no change in the potential for new or different accidental release of hazardous substances. Thus, there would be no impact.

Alternative 1: Restoration with Boating Pier

Alternative 1 would result in a number of improvements throughout the project area, including restoration of Meeks Creek; removal of the marina, boat ramp, and marina office; construction of a boating pier; circulation improvements; multi-use paths; expansion of day use facilities; campground improvements; parking improvements; upgrading or relocating utilities infrastructure; relocation and replacement of motel units along the shoreline in the northern portion of the project area; and replacement of the SR 89 bridge. Construction and operation of these improvements could pose a risk for accidental release of hazardous materials during construction and operation of these facilities.

Construction

Construction of upland improvements, marina and boat ramp removal and creek restoration, removal of the SR 89 bridge, and the boating pier would temporarily increase the transportation, use, storage, and disposal of hazardous materials and petroleum products commonly used at construction sites (e.g., diesel fuel, lubricants, paints and solvents, and cement products containing strong basic or acidic chemicals), which could result in accidents or upset conditions that could create hazards to people and the environment. Accidental spills and leakage from construction equipment may involve fuel, lubricants, hydraulic fluids and coolants. These are typical construction activities requiring the use of hazardous materials that are typical of such activities and would be required to handle hazardous materials in accordance with applicable federal, state, and local laws. Excavation activities, in particular near the marina and boat ramp where fueling activities may have occurred or previously unknown release of petroleum products could have been released, could result in accidental exposure to construction workers to hazardous materials. As described in Section 2.5.1, "Restoration of Meeks Creek and Lagoon," anthropogenic fill would be removed from the marina area and tested for soil chemical contamination and the presence of invasive vegetation and, if contamination is present, disposed of in an appropriately licensed facility.

Impact 3.6-1 in Section 3.6, "Hydrology and Water Quality," provides a detailed discussion of the water quality protection requirements the project would be required to comply with and how they would minimize or avoid potential impacts on water quality that could occur with accidental release of hazardous materials during construction. Some of these requirements and measures that would be implemented include installation of temporary construction BMPs as a condition of project approval as required by TRPA Code Chapters 33 and 60 and identified in the TRPA Best Management Practices Handbook (TRPA 2014), which are summarized in Section 3.6.1, "Regulatory Setting," of Section 3.6, "Hydrology and Water Quality." Applicable BMPs would include removal of

surplus or waste earthen materials from the project area, limiting the area and extent of all excavation to avoid unnecessary soil disturbance, stabilizing and protecting stockpiled material, implementation of spill prevention plans to capture and contain pollutants from fueling operations, designated fuel storage areas, and regular inspection and maintenance of temporary BMPs. Lahontan RWQCB also requires the development and implementation of a project-specific stormwater pollution prevention plan (SWPPP), which would address the means of waste disposal, management controls for potential pollutant sources other than stormwater runoff, and hazardous materials spill response plan (see "NPDES Construction General Permit for Stormwater Discharges Associated with Construction Activity in the Lake Tahoe Hydrologic Unit" in Section 3.6.1). Project construction and operation would also be required to implement and comply with standards and guidelines contained in the LTBMU Forest Plan, state and TRPA regulatory requirements (see Section 3.10.1, "Regulatory Setting"), and manufacturer's instructions related to hazardous materials to reduce the potential for exposure of the public or environment to hazards resulting from routine use, storage, or transport of hazardous materials or from accidental release or upset.

Hazards and hazardous materials are also regulated by a number of federal, state, and local agencies that address hazards related to transportation of hazardous materials and potential hazards to employees. These include the regulations of the agencies summarized above in Section 3.10.1, "Regulatory Setting," including for OSHA, USDOT, Cal/OSHA, DTSC, SWRCB, CHP, Caltrans, and EDCEMD. Additionally, project construction would comply with USDA Forest Service Land Management Plan Standard SG5 and Guideline SG7 listed above under the "LTBMU Land Management Plan" section, which are related to implementation of BMPs and storage of fuel and other hazardous materials.

As described above under the "Hazardous Materials in the Project Area" section, given the completion of roadway stormwater drainage improvements along SR 89 through 2015, ADL is not likely to remain along SR 89 at the bridge over Meeks Creek; thus, implementation of the SR 89 bridge replacement would not expose construction workers to ADL during construction.

Boating Pier

The pier would be constructed by a floating or amphibious barge. Amphibious barges can be driven out of the lake to refuel equipment. If a floating barge is used, fuel would be transferred in containers for refueling. Construction of the boating pier would be required to prepare and implement a SWPPP that would identify all spill prevention plans, means of waste disposal, and other BMPs (as described above and in Impact 3.6-1) that would reduce the potential of directly and indirectly effecting water quality through construction-related hazardous material spills. The SWPPP would also identify measures for maintaining a spill kit that would minimize the extent of any accidental release of hazardous materials in the lake.

If drilling is required for pile installation, a caisson would be used to isolate the drilling site and protect water quality (see Impact 3.6-1). (A caisson is a BMP that is defined as a retaining structure in which the water can be pumped out to create a dry work environment.) Turbidity curtains would only be used if necessary during installation of pier piles to minimize water quality impacts from suspended sediment, but are not typically required for pile driving in coarse sediment. Turbidity curtains are a standard BMP requirement for construction or operational activity conducted in the backshore, foreshore, and some nearshore areas of Lake Tahoe. Marine BMPs would be incorporated into the project design and would be enforced through the CWA Section 401 certification process. These BMPs would minimize the potential for the release of hazardous substances.

Removal of the Marina Office Building and Motel Unit Buildings

To expand the useable beach space on the north end of the bay, implementation of Alternative 1 would remove the two motel style cabin units in the Meeks Bay Resort and replace them with three smaller cabin units farther inland. These existing cabin units were constructed in 1962. Removal of the marina and boat ramp and restoration of the creek would include removal of the marina office, which was built between 1962 and 1969. As described above under the "Hazardous Materials in the Project Area" section, buildings constructed prior to 1979 may contain asbestos and buildings constructed prior to 1978 may contain lead-based paint and the motel units and marina building to be demolished could contain lead-based paint or asbestos-containing material. Thus, if not handled properly,

construction workers could be exposed to lead-based paint or asbestos-containing material when these buildings are demolished.

Federal and state regulations govern the renovation and demolition of structures where materials containing lead and asbestos could be present. Asbestos and lead abatement must be performed and monitored by contractors with appropriate certifications from the California Department of Health Services. Demolition of structures containing asbestos would be a NESHAP Regulated Facility subject to a thorough asbestos inspection and testing of materials to determine whether asbestos is present.

Section 1532.1 in Title 8 of the CCR addresses construction work where an employee may be occupationally exposed to lead. In compliance with Cal/OSHA regulations, surveys for indicators of lead-based coatings, and flakes in soil, would be conducted before demolition of the buildings under Alternative 1 to further characterize the presence of lead in the project area. Loose or peeling paint may be classified as a hazardous waste if concentrations exceed total threshold limits. Cal/OSHA regulations require air monitoring, special work practices, and respiratory protection during demolition and paint removal where even small amounts of lead have been detected. Agency notification and compliance with California Department of Health Services and Cal/OSHA regulations would require that the presence of these materials be verified and remediated, which would eliminate potential health risks associated with exposure to asbestos or lead during building demolition associated with Alternative 1.

Meeks Creek Restoration and Removal of the Marina and Boat Ramp

The marina in the project area has been in operation since the early 1960s. Past uses have included a fueling dock and recent operations at the marina included fueling rental boats from a fuel tank in the back of a truck. Additionally, past boat repair and maintenance activities that could have occurred at or adjacent to the marina could have resulted in accidental release of hazardous materials or waste. Thus, excavation activities associated with the creek restoration or removal of the marina and boat ramp could result in inadvertently exposing workers to hazardous materials. However, as described in Section 2.5.1, "Restoration of Meeks Creek and Lagoon," in Chapter 2, the soils in these areas would be sampled and evaluated for the presence of hazardous materials and, if contamination is found then the soils would be removed in accordance with all applicable federal, state, and local regulations and disposed of at a permitted hazardous waste disposal facility, which would minimize the potential for release of hazardous substances.

Operations and Maintenance

Hazardous materials similar to those used during construction could also be used periodically as part of operation, maintenance, and repair of infrastructure, equipment, and facilities under Alternative 1. Implementation of Alternative 1 would not introduce new types of uses to the project area such that new types of hazardous materials are introduced. Thus, operation of Alternative 1 would continue to use and store hazardous materials, such as household cleaners and fertilizers and pesticides, similar to that which occurs under existing conditions. Overall, although the boating pier would attract motorized boaters to the bay, because the marina and boat ramp would be removed and thereby reducing that source of motorized boaters, there would be reduced potential for accidental release of hazardous materials associated with motorized boats (e.g., oil, grease, diesel fuel, and oily bilge water).

Operations and maintenance under Alternative 1 would be required to implement and comply with the federal, state, and local regulatory requirements described above in Section 3.10.1 and use hazardous materials consistent with manufacturer's instructions related to hazardous materials to reduce the potential for exposure of the public or environment to hazards resulting from routine use, storage, or transport of hazardous materials or from accidental release or upset.

Conclusion

Alternative 1 would temporarily increase the regional transportation, use, storage and disposal of hazardous materials and petroleum products commonly used at construction sites, which could result in accidents or upset conditions in the project area, including during construction of the boating pier, that could create hazards to people and the environment.

Construction of some project components could result in inadvertent exposure of construction workers to hazardous materials contamination or hazardous building materials (e.g., asbestos, lead). However, prior to soil disturbance for

the creek restoration and marina and boat ramp removal, soils would be tested and, if found to be contaminated, would be properly handled and disposed. Demolition of the marina office and motel unit buildings would occur after testing for asbestos-containing materials and lead-based paint in accordance with federal and state laws.

Operation of the project would result in continued use of hazardous materials in the project area that are typically used for household cleaning and landscaping activities.

The project's compliance with federal, state, and local regulatory requirements related to hazardous materials would reduce or avoid the potential for exposure of the public or environment to hazards resulting from routine use, storage, or transport of hazardous materials or from accidental release or upset. This impact would be less than significant.

Alternative 2: Restoration with Pedestrian Pier

Implementation of Alternative 2 would result in a number of improvements throughout the project area, including restoration of Meeks Creek; removal of the marina, boat ramp, and marina office; construction of a pedestrian pier; circulation improvements; multi-use paths; expansion of day use facilities; campground improvements; parking improvements; upgrading or relocating utilities infrastructure; and replacement of the SR 89 bridge. Construction and operation of these improvements could pose a risk for accidental release of hazardous materials during construction and operation of these facilities.

As discussed above for Alternative 1, construction of Alternative 2 would include soils testing and proper removal and disposal of any contaminated soils encountered. Implementation of Alternative 2 would not introduce new types of uses to the project area such that new types of hazardous materials are introduced. Alternative 2 would comply with federal, state, and local regulatory requirements related to hazardous materials that would reduce or avoid the potential for exposure of the public or environment to hazards resulting from routine use, storage, or transport of hazardous materials or from accidental release or upset. This impact would be less than significant.

Alternative 3: Restoration with No Pier

Implementation of Alternative 3 would result in a number of improvements throughout the project area, including restoration of Meeks Creek; removal of the marina, boat ramp, and marina office; construction of a paddlecraft launch; circulation improvements; multi-use paths; expansion of day use facilities; campground expansion; parking improvements; upgrading or relocating utilities infrastructure; and replacement of the SR 89 bridge. Construction and operation of these improvements could pose a risk for accidental release of hazardous materials during construction and operation of these facilities.

As discussed above for Alternative 1, construction of Alternative 3 would also include soils testing and proper removal and disposal of any contaminated soils encountered. Although implementation of this alternative would add parking spaces and campsites, these are the same as existing uses in the project area, and implementation of Alternative 3 would not introduce any new types of uses to the project area such that new types of hazardous materials are introduced. Alternative 3 would comply with federal, state, and local regulatory requirements related to hazardous materials that would reduce or avoid the potential for exposure of the public or environment to hazards resulting from routine use, storage, or transport of hazardous materials or from accidental release or upset. This impact would be less than significant.

Alternative 4: Preferred Alternative

Alternative 4 would result in a number of improvements throughout the project area, including restoration of Meeks Creek; removal of the marina, boat ramp, and marina office; construction of a paddlecraft launch; circulation improvements; multi-use paths; expansion of day use facilities; campground reconfiguration; parking improvements; upgrading or relocating utilities infrastructure; and replacement of the SR 89 bridge. Construction and operation of these improvements could pose a risk for accidental release of hazardous materials during construction and operation of these facilities.

As discussed above for Alternative 1, construction of Alternative 4 would also include soils testing and proper removal and disposal of any contaminated soils encountered. Although implementation of this alternative would add parking spaces, these are the same as existing uses in the project area, and implementation of Alternative 4 would not introduce

any new types of uses to the project area such that new types of hazardous materials are introduced. Alternative 4 would comply with federal, state, and local regulatory requirements related to hazardous materials that would reduce or avoid the potential for exposure of the public or environment to hazards resulting from routine use, storage, or transport of hazardous materials or from accidental release or upset. This impact would be less than significant.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.10-6: Potential Changes in Wildfire Risk

Implementation of Alternatives 1, 2, 3, and 4 would not exacerbate wildfire risks because capacity for recreational fires would not substantially change and would be subject to seasonal fire restrictions during periods of high fire risk. Additionally, grills in the day-use areas would be removed, defensible space would be maintained in the project area, and construction would comply with all applicable fire-related codes and regulations. Alternative 1 would retain emergency response access with construction of the boating pier with dock space for an emergency services boat. Although Alternatives 3 and 4 would slightly increase visitor capacity, the number of visitors that could cause or be exposed to wildfire risk would not be a substantial increase over existing conditions and use of recreational fires would continue to be carefully managed as described above. Additionally, fuels management projects and programs near the project area would help to reduce forest fuels in surrounding areas, reducing the potential wildfire risk and risk of catastrophic wildfires. For these reasons, implementation of Alternatives 1, 2, 3, and 4 would result in a less-than-significant impact related to potential changes to wildfire risk.

Because the No Action Alternative would result in no change to the project area, there would be no change in wildfire risk or in the number of people exposed to such risks. The project areas would continue to be exposed to the same level of wildfire risk as under existing conditions. This would be a less-than-significant impact.

No Action Alternative

With the No Action Alternative, there would be no change to the project area. Facilities would continue to operate as they do under existing conditions and there would be no change in wildfire risk or exposure as a result of the project. Continued exposure to existing wildfire risk would be a less-than-significant impact.

Alternative 1: Restoration with Boating Pier

Exposure to Wildland Fires

As described above, the project area is located within a Very High FHSZ as designated by CAL FIRE. Implementation of Alternative 1 would result in changes in the project area that would include removal of the marina and boat ramp and restoration of Meeks Creek, circulation improvements, reconstruction of the SR 89 bridge, campground improvements, expanding the day-use areas and removing grills from these areas, utility improvements (including potentially undergrounding electric lines, if feasible), and construction of a boating pier with a lift for an emergency services boat. This alternative would also relocate the motel style cabin units in the Meeks Bay Resort farther inland and replace them with three cabin units. Alternative 1 would not increase capacity for visitors, and thus would not increase the potential number of visitors that could cause a wildfire or be exposed to wildfire risk.

Consistent with guidelines in the Forest Plan, Alternative 1 would provide a 100-foot radius of defensible space around all USFS structures and would ensure that facilities comply with health and safety codes (Guidelines SG22 and SG138). Construction of the new cabin units and utilities improvements would be built to meet the standards of the Uniform Fire Code, California Fire Code, and MBFPD Fire Code, including standards for building construction related to fire hazards, automatic interior fire sprinklers, onsite fire hydrants, and adequate emergency and fire apparatus access. The project area would also maintain defensible space of at least 100 feet. As described under "Ongoing Forest Management," above, the wildfire risk in the surrounding forested areas is actively managed by land management agencies with ongoing fuel management being conducted and a number of fuel management projects and programs are being implemented; thus, the potential wildfire risk and risk of catastrophic wildfires is being reduced.

Large group grills would be provided that could be used for events, but no additional small individual grills would be included, and existing grills would be removed to reduce wildfire risk and associated litter. Existing metal fire rings would be retained in the campsites and visitors would continue to be prohibited from building their own fire rings (e.g., rock fire rings). The USDA Forest Service would continue to ban campfires during periods of high fire risk. Because the number of campsites (and associated metal fire rings) would not change with this alternative and the number of grills reduced, there would be a slight reduction in risk of fire.

Because construction would comply with all applicable fire-related codes and regulations and no feature of the alternative would render it fire prone, Alternative 1 would not increase potential exposure to wildland fires.

Fire Risks Associated with Installation or Maintenance of Project Infrastructure

Alternative 1 would include improvements to existing utility services within the project area. If feasible, electric lines would be moved underground. Thus, wildfire risks associated with project infrastructure would be the same as or slightly reduced under existing conditions or the No Action Alternative.

Downslope or Downstream Risks Associated with Wildfires

The analyses discussed in Sections 3.6, "Hydrology and Water Quality," and 3.7, "Geology and Soils," do not indicate that substantial flooding or landslide events would occur in the project area (see Impacts 3.6-4 and 3.7-3). The project area and adjacent areas have not been subject to wildfire such that the people or structures within the project area or in downslope areas would be exposed to significant risks (e.g., downslope or downstream flooding or landslides) as a result of runoff, post-fire slope instability, or drainage changes.

Conclusion

Alternative 1 would not exacerbate wildfire risks because capacity for recreational fires would not change and would be subject to seasonal fire restrictions during periods of high fire risk and the grills in the day-use areas would be removed, defensible space would be maintained in the project area, construction would comply with all applicable fire-related codes and regulations. This alternative would not increase capacity for visitors, and thus would not increase the potential number of visitors that could cause a wildfire or be exposed to wildfire risk. This alternative would result in retaining emergency response access with construction of the boating pier with an emergency services boat. Because this alternative would not result in substantial flooding or landslide events and the project area and adjacent areas have not been subject to wildfire, Alternative 1 would not expose people or structures within the project area or in downslope areas to significant risks (e.g., downslope or downstream flooding or landslides) as a result of runoff, post-fire slope instability, or drainage changes. Additionally, there are separate projects and activities that are reducing forest fuels in the areas surrounding the project area. For these reasons, implementation of Alternative 1 would result in a less-than-significant impact related to potential changes to wildfire risk.

Alternative 2: Restoration with Pedestrian Pier

Implementation of Alternative 2 would result in similar construction activities and project area improvements, including those related to circulation and utilities, as Alternative 1; however, this alternative would only include a pedestrian pier. This alternative would not remove the motel units along the beach and construct new cabin units farther inland. For the reasons described above for Alternative 1, Alternative 2 would not expose people or structures within the project area or in downslope areas to significant risks (e.g., downslope or downstream flooding or landslides) as a result of runoff, post-fire slope instability, or drainage changes and, thus, implementation of Alternative 2 would result in a less-than-significant impact related to potential changes to wildfire risk.

Alternative 3: Restoration with No Pier

Alternative 3 would result in similar construction activities and project area improvements, including those related to circulation and utilities, as Alternative 1; however, this alternative would only include a paddlecraft launch. This alternative would not remove the motel units along the beach and construct new cabin units farther inland.

This alternative would result in adding up to 22 new campsites that would include metal fire rings, which would increase visitor capacity in the project area and increase opportunities for recreational fires. Like Alternatives 1 and 2, this alternative would remove individual grills in the day-use areas and instead provide large grills for special events

and the project area would continue to be subject to seasonal fire restrictions during periods of high fire risk. Visitor capacity and the number of metal fire rings in the campgrounds would increase and visitors would be prohibited from building their own fire rings. The average number of day-use and overnight visitors per day that could cause a wildfire or be exposed to wildfire risk would increase by 5-8 percent with an approximately 2-4 percent increase associated with additional overnight visitors, which would not be a substantial increase over existing conditions (see Table 3.1-9 under Impact 3.1-1 in Section 3.1, "Recreation"). The Meeks Bay Campground would continue to provide a campground host that is on-site 24 hours per day and Meeks Bay Resort would also continue to have staff on-site 24 hours per day; thus, the use of recreational fires would continue to be carefully managed. For these reasons in addition to those described above for Alternative 1, implementation of Alternative 3 would not expose people or structures within the project area or in downslope areas to significant risks (e.g., downslope or downstream flooding or landslides) as a result of runoff, post-fire slope instability, or drainage changes. Thus, this alternative would result in a less-than-significant impact related to potential changes to wildfire risk.

Alternative 4: Preferred Alternative

Alternative 4 would result in similar construction activities and project area improvements as Alternative 1, including those related to circulation and utilities, and relocation of cabins. However, like Alternative 3, this alternative would only include a paddlecraft launch. This alternative would not include the campsite expansion proposed under Alternative 3 and would not increase the number of metal fire rings for recreational fires. The approximately 3-5 percent increase in day-use visitors (see Table 3.1-10 under Impact 3.1-1 in Section 3.1, "Recreation") that could cause a wildfire or be exposed to wildfire risk would not be a substantial increase over existing conditions and use of recreational fires would continue to be carefully managed. For these reasons in addition to those described above for Alternative 1, Alternative 4 would not expose people or structures within the project area or in downslope areas to significant risks (e.g., downslope or downstream flooding or landslides) as a result of runoff, post-fire slope instability, or drainage changes. This alternative would result in a less-than-significant impact related to potential changes to wildfire risk.

Mitigation Measures

No mitigation is required for this impact.

3.10.4 Cumulative Impacts

The geographic area considered for assessing cumulative impacts related to public health and safety is the west shore area of Lake Tahoe. The cumulative effects of each aspect of public safety and hazards are discussed below.

Interfere with Implementation of an Adopted Emergency Response Plan or Emergency Evacuation Plan

In the west shore area, SR 89 is the primary evacuation route, providing two routes for emergency access and evacuation (northbound SR 89 and southbound SR 89). Emergency response along the west shore is guided by the *El Dorado County Local Hazard Mitigation Plan* and the *Placer Operational East Side Emergency Evacuation Plan*, which provide details regarding evacuation alerts, evacuation emergency medical services and public information, traffic control, transportation, communication, and animal services.

The cumulative projects listed in Section 3.2.3, "Related Projects and Plans," include forest fuel reduction projects, a multi-use path project (Tahoe Trail from Meeks Bay to Emerald Bay), and the CMP. Implementation of forest fuel reduction treatments would temporarily introduce work vehicles and trucks carrying equipment or biomass that could add to vehicles and people that need to evacuate along SR 89; however, with completion of the treatments, the risk of wildfire would be reduced thereby reducing the potential for catastrophic wildfire and need for evacuation. The CMP identifies a list of projects that would achieve a number of goals including the following goal related to emergency access and evacuation and managing congestion:

- ▶ Advance Safety. Enhance facilities and utilize management strategies that reduce the potential for traffic incidents and enhance emergency access and evacuation routes.

During construction of projects identified in the CMP, such as bike lanes, the Tahoe Trail, widening shoulders, utility undergrounding, transit stops, and emergency turnouts, there would be additional construction equipment and workers along the highway that would add to congestion along SR 89, including during evacuation. However, it is unlikely that all of the fuel treatment activities and construction of cumulative projects would occur simultaneously. Undergrounding of utilities could result in temporary, short stretches of single-lane road closures that could reduce traffic flow, including for emergency access and evacuation, but this analysis of cumulative projects assumes there would not be any total road closures for emergency access or evacuation. The additional vehicles associated with construction of a few of these projects at one time would not result in a substantial number of vehicles that would result in physical interference with implementation of an emergency response plan or evacuation plan or substantially increase the time it takes to evacuate the area because none of these projects would involve road closures hauling a substantial amount of materials over a short period of time such that a sudden influx of haul truck traffic would occur.

As described in Impact 3.10-1, Alternatives 1 and 2 would not result in an increase in visitation to the project area and would not contribute additional vehicles that could interfere with emergency response or an emergency evacuation plan during operations. Replacement of the SR 89 bridge for all action alternatives would interfere with vehicle travel across the bridge during construction activities, including emergency vehicle access and evacuation access. As described in Section 2.10.2, "State Route 89 Bridge Replacement," a traffic management plan would be developed and implemented to minimize traffic disruption during construction and maintain continual emergency access across Meeks Creek by either constructing the trail bridge first and diverting emergency vehicles and evacuating vehicles across the trail bridge, 2) cutting the bridge in half with one lane in operation at all times, or 3) constructing a temporary bridge on the upstream or downstream side of the existing bridge to provide continuous access. Because of the short-term nature of the construction activities and access near the project area would be maintained during construction, construction activities would not interfere with use of evacuation centers and would not interfere with use of SR 89 as an evacuation route. Other construction activities for the action alternatives would occur within the project area and, while such activities would add vehicle traffic associated with equipment and workers, none of the cumulative projects envision construction of major new facilities or the import or export of substantial volumes of material such that they would result in a substantial number of vehicles that would result in physical interference with implementation of an emergency response plan or evacuation plan or substantially increase the time it takes to evacuate the area.

Implementation of Alternatives 3 and 4 would result in an increase in parking by up to 14 spaces and Alternative 3 would also increase campsites by up to 22 sites, which would increase the number of visitors to the project area. Alternative 3 would result in an estimated 27,910 total visitors to the project area annually, which would be approximately 3 percent of the estimated annual visitors to the corridor. This alternative would also result in an estimated additional 280 visitors per day during the busiest months. The change in visitation for Alternative 3 would result in an increase of up to an estimated 5-8 percent increase in the average number of daily vehicles at the project area at one time compared to existing conditions during peak periods. Alternative 4 would result in fewer additional visitors than Alternative 3, but more than Alternatives 1 and 2. The increase in visitors to the project area during the busiest months would not physically interfere with emergency response or implementation of an emergency evacuation plan for the reasons described above. Implementation of projects in the CMP would achieve the CMP's goals to enhance emergency access and evacuation routes and reduce congestion. For this reason and because the cumulative projects would not result in full road closures, the temporary reduction in access across the SR 89 bridge that may occur during construction of any of the action alternatives would not combine with the cumulative projects to result in a significant cumulative impact on implementation of an adopted emergency response plan or emergency evacuation plan.

Emergency Access to and from Lake Tahoe

The west shore contains existing impediments to lake access for emergency response providers from upland areas and impediments to shore access for emergency responders from the lake. The forest fuel reduction and restoration projects would not impede emergency access to and from the lake because they consist of temporary activities that thin heavily vegetated areas that are generally not adjacent to the lake. Although the Shoreline Plan could result in increased activity in the nearshore, foreshore, and backshore, which could hinder emergency responders' ability to

access boaters and swimmers in the water and some existing lake access points are unavailable during low water conditions, the plan would implement low lake level adaptation strategies that would ensure sufficient shoreline emergency access during low water conditions. The CMP would not hinder emergency access to the lake because its goals include those for improving congestion and emergency access in the SR 89 recreation corridor near the lake. The Tahoe Trail would improve access along SR 89 for pedestrians and bicyclists and would not include facilities that would obstruct emergency access to adjacent areas.

As described in Impact 3.10-3, although this alternative would result in removal of the marina and boat ramp, a potential access point to and from the lake for emergency responders during high lake levels, the addition of a boating pier with the capacity to dock an emergency services boat would retain emergency access to and from the lake.

Implementation of Alternatives 2, 3 and 4 would also result in circulation improvements in the project area that would improve emergency access through the project area to and from the lake. These alternatives would remove the marina and boat ramp and would not provide any additional facilities for motorized boating access, including for emergency responders, in the project area. Although removal of the marina and boat ramp would reduce emergency access to and from the lake, it is currently only accessible during periods of high lake levels and an alternate site for emergency access on the west shore is being planned by TRPA and public safety agencies. The effects of the project on emergency access would be less than significant and would not combine with the effects of the cumulative projects to result in a significant cumulative impact related to emergency access to and from the lake.

Increased Demand for Emergency Response Resources

As described under the "Fire Protection and Emergency Services" section above, from 2017-2019, MBFPD responded to an annual average of 227 emergency incidents and NTFPD responded to an annual average of 2,241 incidents (MBFPD and NTFPD 2020). From 2017-2020, MBFPD and NTFPD have responded to 154 emergency incidents in the shoreline area of their respective districts that could have dispatched or utilized an emergency or emergency services boat present on the west shore (McNamara, pers. comm., 2020). Additionally, in this time frame MBFPD and NTFPD have responded to 12 incidents that utilized a boat from other fire agencies, which resulted in a minimum of an hour response time.

Many of the cumulative projects or plans include forest fuels reduction activities that would reduce the threat of catastrophic wildfire in the west shore (see Table 3-2), thus reducing the potential demand for emergency resources. As described above, the CMP identifies a list of projects that would achieve a number of goals including managing congestion, which would include managing the timing of visitation to the SR 89 recreation corridor. The cumulative projects would not generate capacity for more visitors in the west shore such that there would be a significant cumulative impact on demand for emergency response resources.

As described in Impact 3.10-3, the action alternatives would continue to implement or enhance existing safety measures in the project area, including retaining the designated swim areas demarcated with buoys in the bay, campfires would continue to be banned during periods of high fire risk, and the number of grills in the day-use area would be reduced. There would be no new types of uses in the project area that would result in new types of emergencies.

Alternatives 1 and 2 would not increase visitation to the project area and Alternatives 3 and 4 would result in modest increases in visitors to the project area that would be a small proportional increase in visitors to the project area. For these reasons that are further discussed under Impact 3.10-3, the action alternatives would not substantially affect demand for emergency response resources and would not combine with the effects of the cumulative projects to result in a significant cumulative impact related to demand for emergency services.

Navigational Hazards to Motorized and Nonmotorized Recreation

Because nonmotorized watercraft generally do not travel far from where they are launched (e.g., kayaks and paddleboards launched at the project area would be unlikely to travel outside of the bay), it would be unlikely that nonmotorized watercraft users in Meeks Bay would experience navigational hazards that may be posed by cumulative projects, in particular implementation of the Shoreline Plan, in addition to those they could experience

with the piers under Alternatives 1 and 2 and with the additional designated swim area under all four action alternatives. Removal of the marina and boat ramp in the project area under Alternatives 1, 2, 3, and 4 would generally reduce the amount of motorized boating in the bay and would reduce the potential for motorized boaters to experience navigational hazards. The effects of the action alternatives would not combine with the effects of the cumulative projects to result in a significant cumulative impact related to navigational hazards.

Accidental Release of Hazardous Substances

Although some hazardous materials releases can cover a large area and interact with other releases (e.g., atmospheric contamination, contamination of groundwater aquifers), incidents of hazardous materials contamination are more typically isolated to a small geographic area. These relatively isolated areas of contamination typically do not combine in a cumulative manner with other sites of hazardous materials contamination. The geographic area for cumulative impacts related to accidental release of hazardous substances would be limited to the project area and areas immediately adjacent to the project area. There are no identified incidents of widespread hazardous materials contamination with different sources of contamination on the project area or in its vicinity that would combine to create a cumulative impact (SWRCB 2021). Thus, there is not an existing significant cumulative impact related to accidental release of hazardous materials. Adjacent cumulative projects that may use hazardous materials include the Meeks Meadow Restoration Project, Lake Tahoe West, Tahoe Program Timberland EIR, and Tahoe Trail (Meeks Bay to Emerald Bay). All of these projects would be implemented in compliance with federal, state, and local hazardous materials regulations, limiting the potential for releases and contamination and requiring clean-up when such events occurred. Given these conditions, the cumulative projects would not result in a significant cumulative impact related to hazardous materials.

As described in Impact 3.10-5, the action alternatives would temporarily increase the regional transportation, use, storage and disposal of hazardous materials and petroleum products commonly used at construction sites (such as diesel fuel, lubricants, paints and solvents, and cement products), which could result in accidents or upset conditions in the project area, including during construction of the boating or pedestrian pier, that could create hazards to people and the environment. Operation and maintenance of any of the action alternatives would result in continued use of the same types of hazardous materials that are currently used in the project area. The project's compliance with federal, state, and local regulatory requirements related to hazardous materials, implementation of BMPs, and testing of soils for hazardous materials prior to excavation, the potential for exposure of the public or environment to hazards resulting from routine use, storage, or transport of hazardous materials or from accidental release or upset would be reduced. For these reasons, the effects of the action alternatives would not combine with the effects of the cumulative projects to result in a significant cumulative impact related to accidental release of hazardous substances.

Potential Changes in Wildfire Risk

Table 3-2 under the "Approach to the Environmental Analysis" section, lists past, present, and reasonably foreseeable projects that have and likely will use internal combustion engines or include other construction-related types of activities and use of heavy machinery within the WUI, which have the potential to create sparks and subsequent fire and employ prescribed burning within the west shore area. These projects and plans are the Meeks Meadow Restoration Project, Lake Tahoe West, California State Parks Fuels Reduction and Understory Burning, West Shore WUI Hazardous Fuel Reduction Project, Tahoe Program Timberland EIR, and Tahoe Trail (Meeks Bay to Emerald Bay). However, most of these projects or plans include forest fuels reduction activities that would reduce the threat of catastrophic wildfire in the west shore. These projects and construction of the Tahoe Trail project would utilize best management practices typically implemented with fuel reduction and construction activities related to use of mechanized tools or equipment that have federal- or state-approved spark arresters, carrying fire extinguishers, and smoking would only be permitted in designated smoking areas. Therefore, it is unlikely that the presence and use of vehicles and equipment needed to implement the treatment and construction activities would substantially exacerbate fire risk resulting in the uncontrolled spread of wildfire. In addition, given all of the planning requirements (e.g., Smoke Management Plan and Burn Plan), ongoing monitoring and maintenance, and safety protocols, prescribed burning would not substantially exacerbate fire risk or result in the uncontrolled spread of wildfire. Thus, these cumulative projects would not result in a significant cumulative impact relative to wildfire risk and some of

these projects would reduce the potential for wildfire in the west shore area, including the area surrounding the project area.

As described in Impact 3.10-6, implementation of any of the action alternatives would not exacerbate wildfire risks because capacity for recreational fires would not substantially change and would be subject to seasonal fire restrictions during periods of high fire risk. Additionally, grills in the day-use areas would be removed, defensible space would be maintained in the project area, and construction would comply with all applicable fire-related codes and regulations. Thus, the effects of the action alternatives would not combine with the effects of the cumulative projects to result in a significant cumulative impact related to wildfire risk.

For the reasons described above, the alternatives would have a less than cumulatively considerable impact related to public safety and hazards.

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