

3 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

APPROACH TO THE ENVIRONMENTAL ANALYSIS

This draft environmental impact statement/environmental impact statement/environmental impact report (Draft EIS/EIS/EIR) describes the existing physical and biological environment of the affected project area and evaluates the potential for direct, indirect, and cumulative effects on environmental resources associated with the proposed Meeks Bay Restoration Project alternatives, in compliance with the National Environmental Policy Act (NEPA) and other relevant Federal and State laws and regulations including the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000, et seq.) and the State CEQA Guidelines (California Code of Regulation, Title 14, Chapter 3, Section 1500, et seq.), the Tahoe Planning Compact (Public Law 96-551) and TRPA Code of Ordinances. An EIS pursuant to NEPA must be prepared for a major federal undertaking that could have a significant effect on the environment. An EIS for the purposes of TRPA is required to be completed for issuance of a TRPA permit. An EIR for the purposes of CEQA is required to be completed for issuance of permits by Lahontan RWQCB. This Draft EIS/EIS/EIR also presents the scientific and analytical basis to facilitate a comparison among the alternatives, including the action alternatives and the No Action Alternative.

Technical specialists conducted site visits, surveys, research, and prepared reports to inform the environmental analysis. The following specialist reports are included as a part of the project record:

- ▶ Aquatic Resources Delineation Report,
- ▶ Biological Assessment,
- ▶ Biological Evaluation,
- ▶ Hydrology and Geomorphology Report,
- ▶ Invasive Plant Risk Assessment,
- ▶ Cultural Resources Inventory, and
- ▶ Historic Resources Evaluation Report.

National Environmental Policy Act

NEPA requires federal agencies to integrate environmental values into their decision-making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions. The Meeks Bay Restoration Project is a proposed action subject to NEPA, because it is considered a major Federal action (40 CFR 1500.1[a], 40 CFR 1508.1[q]). When the significance of impacts of a project proposal is uncertain, an EA is prepared to assist in making this determination. If it is found that significant impacts would result, preparation of an EIS is necessary. Based on a preliminary review of potential effects and because this is a joint document with a TRPA EIS and CEQA EIR, USDA Forest Service has determined that an EIS will be prepared.

The technical sections have been prepared in accordance with the Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR Section 1500 et seq.) issued by the Council on Environmental Quality. In addition, this EIS follows the USDA Forest Service regulations for implementing NEPA, including FSH 1909.15 – National Environmental Policy Act Handbook. The NEPA Handbook provides detailed information on the contents and processing of environmental documents.

Tahoe Regional Planning Agency

Article VII(a)(2) of the Bi-State Compact requires TRPA, when acting upon matters that may have a significant effect on the environment, to prepare and consider a detailed EIS before deciding to approve or carry out any project. The TRPA Code states that an EIS shall identify significant environmental impacts of the project, any significant adverse environmental effects that cannot be avoided if the project is implemented, and mitigation measures that must be implemented to meet threshold standards of the Lake Tahoe Basin (TRPA Code of Ordinances [Code] Section 3.7.2). In addition, an EIS must include a discussion of the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity and any significant irreversible and irretrievable commitments of resources that would be involved in the project should it be implemented. The EIS shall also evaluate growth-inducing impacts of the project (TRPA Code, Section 3.7.2).

TRPA has established Environmental Threshold Carrying Capacities (threshold standards) and indicators for nine resource areas: water quality, air quality, scenic resources, soil conservation, fish habitat, vegetation, wildlife habitat, noise, and recreation. TRPA threshold standards are minimum standards of environmental quality to be achieved in the Tahoe Region. Every four years, TRPA evaluates the attainment status of all TRPA threshold standards. The latest TRPA Threshold Evaluation was completed in 2019. Pursuant to TRPA Code Section 4.4, TRPA is required to find that the project would not cause the threshold standards to be exceeded. The EIS/EIS/EIR helps to inform TRPA in making the findings; however, the specific threshold analyses and findings will be contained in staff reports and written findings presented to the TRPA Governing Board during consideration of certification of this EIS/EIS/EIR and approval of a project alternative at the conclusion of the environmental review process.

California Environmental Quality Act

CEQA and the State CEQA Guidelines direct that an EIR evaluate and disclose the significant and potentially significant environmental impacts associated with a project. The significant and potentially significant environmental effects of all phases of the project and project alternatives, including construction and operation, are evaluated in the analysis (consistent with State CEQA Guidelines Section 15126.2). A significant effect is defined in CEQA as a substantial or potentially substantial adverse change to the physical environment resulting from implementation of the project. Where significant effects on the environment are identified, the document describes feasible mitigation measures and a reasonable range of alternatives to reduce the significant or potentially significant effects on the environment. Mitigation measures may avoid, minimize, or compensate for significant adverse impacts, and need to be fully enforceable through permit conditions, agreements, or other legally binding means (Guidelines Section 15126.4[a]). Mitigation measures are not required for effects that are found to be less than significant. An EIR must also identify growth-inducing impacts and any significant effects that are unavoidable.

Contents of Environmental Analysis Sections

Sections 3.1 through 3.13 of this Draft EIR/EIS/EIS present a discussion of regulatory background, existing conditions, environmental impacts associated with construction and operation of the project, mitigation measures to reduce the level of impact, and residual level of significance (i.e., after application of mitigation, including impacts that would remain significant and unavoidable after application of all feasible mitigation measures). Issues evaluated in these sections consist of the environmental topics identified for review through environmental scoping and public participation.

Sections 3.1 through 3.13 of this Draft EIR/EIS/EIS each include the following components.

Regulatory Setting: This subsection presents information on the laws, regulations, plans, and policies that relate to the issue area being discussed. Applicable regulations originating from the federal, regional, state, and local levels are each discussed as appropriate.

Environmental Setting: This subsection presents the existing environmental conditions in the project area and in the surrounding area as appropriate and serves as the description of the affected environment for purposes of NEPA and environmental setting in accordance with State CEQA Guidelines Section 15125. The discussions of the environmental

setting focus on information relevant to the issue under evaluation. The extent of the environmental setting area evaluated (the project study area) differs among resources, depending on the locations where impacts would be expected.

Environmental Impacts and Mitigation Measures: This subsection presents thresholds of significance and discusses potentially significant effects of the Meeks Bay Restoration Project alternatives on the existing environment, including the environment beyond the project boundaries. The methodology for impact analysis is described, including technical studies upon which the analyses rely. In this subsection, thresholds of significance are defined and if the project would have no impact on a threshold, it is disclosed and dismissed from further evaluation.

Project impacts and mitigation measures are numbered sequentially in each subsection (Impact 3.2-1, Impact 3.2-2, Impact 3.2-3, etc.). A summary impact statement precedes a more detailed discussion of the environmental impact. The discussion includes the analysis, rationale, and substantial evidence upon which conclusions are drawn. A bold font impact statement precedes the discussion of each impact and provides a summary of each impact and its level of significance.

Under NEPA, preparation of an EIS is triggered if a federal action has the potential to “significantly affect the quality of the human environment,” which is based on the context and intensity for each potential impact (40 CFR 1508.27). TRPA and CEQA require a determination of impact significance for each impact discussed in an EIS and EIR based on significance criteria.

The level of impact of the alternatives is determined by comparing estimated effects with baseline conditions. Under NEPA, the No Action Alternative (expected future conditions without the project) is the baseline against which the effects of alternatives are compared to determine the relative intensity of effects among the alternatives. NEPA also seeks identification of beneficial environmental effects, if they occur. For TRPA and CEQA purposes, the existing setting (as described in “Environmental Setting,” above) normally constitutes the baseline point of comparison against which a significance determination is made.

Alternative-specific analyses are conducted to evaluate each potential impact on the existing environment consistent with the requirements of NEPA (40 CFR 1502.16). This assessment specifies why impacts are found to be significant, potentially significant, or less than significant, or why there would be no environmental impact or a beneficial effect. A “potentially significant” impact and “significant” impact are treated the same under NEPA, TRPA, and CEQA in terms of procedural requirements and the need to identify feasible mitigation. For the purposes of NEPA, all significant or potentially significant impacts are required to be identified and additional avoidance, minimization, and/or mitigation measures may be provided. A less-than-significant impact, for the purposes of CEQA and TRPA, and an impact that would not be adverse, for the purposes of NEPA, is one that would not result in a substantial adverse change in the physical environment.

Impact conclusions are made using the significance criteria described in each resource section (Sections 3.1 through 3.13) and include consideration of the “context” of the action and the “intensity” (severity) of its effects in accordance with NEPA guidance. To provide a concise impact conclusion for each impact, a single impact conclusion defined in bold text is provided that combines the impact conclusion for NEPA, TRPA, and CEQA purposes.

Mitigation measures are identified, as feasible, to avoid, minimize, rectify, reduce, or compensate for significant or potentially significant impacts. Unless otherwise noted, the mitigation measures presented are recommended in the EIS/EIS/EIR for consideration by the lead agencies to adopt as conditions of approval.

Where an existing law, regulation, or permit specifies mandatory and prescriptive actions about how to fulfill the regulatory requirement as part of the project definition and would avoid an impact or maintain it at a less-than-significant level, the environmental protection afforded by the regulation is considered before determining impact significance. Where existing laws or regulations specify a mandatory permit process for future projects, performance standards without prescriptive actions to accomplish them, or other discretionary requirements, or have a compensatory component, the level of significance is determined before considering the influence of those regulatory requirements. In this circumstance, the impact would be potentially significant or significant, and the regulatory requirements would be included as a mitigation measure.

This subsection also describes whether mitigation measures would reduce project impacts to less-than-significant levels. Significant and unavoidable impacts are identified as appropriate in accordance with State CEQA Guidelines Section 15126.2(b).

Cumulative Impacts: NEPA implementing regulations require consideration of cumulative effects (40 CFR 1508.25) during environmental review. Cumulative effects are defined as an “impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (40 CFR 1508.7).

Although the TRPA Rules of Procedure and Code of Ordinances do not identify consideration of cumulative impacts as a specific requirement of an EIS, the TRPA Initial Environmental Checklist form poses the following question: “Does the project have impacts which are individually limited, but cumulatively considerable?” In practice, TRPA looks to NEPA and CEQA for guidance in the approach to assessing cumulative impacts, so analysis that complies with those environmental laws is also sufficient for TRPA purposes.

Section 15130(a) of the State CEQA Guidelines requires a discussion of the cumulative impacts of a project when the project’s incremental effect is cumulatively considerable. Where a project’s incremental effect is not cumulatively considerable, the effect need not be considered significant, but the basis for concluding the incremental effect is not cumulatively considerable must be briefly described. Cumulatively considerable, as defined in State CEQA Guidelines Section 15065(a)(3), means that the “incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.” State CEQA Guidelines Section 15355 defines a cumulative impact as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

The goal of the cumulative impacts analysis is twofold: first, to determine whether the overall long-term impacts of all such past, present, and probable future projects are cumulatively significant; and second, to determine whether the proposed program’s incremental contribution to any such cumulatively significant impacts would be “cumulatively considerable” (and therefore significant). (See State CEQA Guidelines Sections 15130[a]–[b], Section 15355[b], and Section 15064[h]; and *Communities for a Better Environment v. California Resources Agency* [2002] 103 Cal. App. 4th 98, 120.)

The spatial and temporal scale of cumulative effects varies by resource. In evaluating cumulative effects of the proposed action, a variety of potential actions and scales was considered and are described in each resource section of this chapter (Table 3-1).

The cumulative analysis must consider the overall long-term effect of past, present, and reasonably foreseeable future actions when the effects of those actions could combine with the effects of the proposed project. The combined effects of past projects are reflected in the existing environmental conditions. These existing conditions are described relative to each resource topic in the “Environmental Setting” subsection of Sections 3.1 through 3.13 of this Draft EIS/EIS/EIR.

The effects of present and reasonably foreseeable future projects can be evaluated by generating a list of projects producing related effects within the geographic area of the cumulative analysis, and/or by evaluating projections based on adopted plans that address conditions related to the cumulative effects (see State CEQA Guidelines Section 15130(b)). As shown in Table 3-1, the geographic scope of the cumulative analysis varies by resource area. For those resource areas where the geographic scope of the cumulative analysis is confined to the local project area and vicinity or Meeks Creek watershed, the project list approach is used. Cumulative projects include those within the Meeks Creek watershed or immediate project vicinity that have the potential to affect the same environmental resources affected by the proposed project. Temporally, cumulative projects were selected that would reasonably be assumed to combine with the Meeks Bay Restoration project and have recently been approved, are anticipated to receive approval during implementation of the project, already have funding, planning efforts are underway, or are currently being implemented or constructed. Related present and reasonably foreseeable future projects considered for the cumulative effects analysis are described in Table 3-2.

Table 3-1 Geographic Scope of Cumulative Impacts

Resource Topic	Geographic Area
Recreation	For land-based recreation and water-based recreation exclusive of motorized watercraft and sailing: west shore of Lake Tahoe For motorized watercraft and sailing: Lake Tahoe Basin
Scenic Resources	Localized (based on view shed and visibility) but may aggregate throughout view corridors and travel units
Cultural and Tribal Cultural Resources	Project area and adjacent areas
Terrestrial Biological Resources	Meeks Creek watershed with implications for the Lake Tahoe Basin
Aquatic Biological Resources	Meeks Creek watershed with implications for the Lake Tahoe Basin
Hydrology and Water Quality	Meeks Creek watershed with implications for Lake Tahoe
Geology, Soils, and Land Capability	Project area
Air Quality	Lake Tahoe Air Basin
Greenhouse Gas Emissions and Climate Change	Global
Public Safety and Hazards	For hazards and hazardous materials: project area, for wildfire and evacuation: west shore of Lake Tahoe
Noise	Localized (based on audibility and sensitive receptors)
Transportation	Project vicinity
Land Use	Lake Tahoe Basin

Source: Compiled by Ascent Environmental in 2021

For resource areas where the geographic scope of the cumulative analysis is broad, such as the Lake Tahoe Basin or Lake Tahoe Air Basin, the cumulative analysis is informed by regional, state, and federal plans that include projections and guidance related to each resource area. The plans applicable to the cumulative analysis include, but are not limited to, the Tahoe Regional Plan, USDA Forest Service, Lake Tahoe Basin Management Unit Forest Plan, and the Lahontan RWQCB Basin Plan. The specific plans and projections related to the cumulative analysis of individual resource areas are described in the “Regulatory Setting” subsection of Sections 3.1 through 3.13 of this Draft EIS/EIS/EIR.

Table 3-2 Cumulative Projects List

Project Name	Location	Description	Project Status
Tahoe Trail ¹	Meeks Bay	A component of the SR89 Corridor Management Plan, this segment of the Tahoe Trail is planned to connect Meeks Bay to Cascade Creek	Feasibility and planning
SR 89 Recreation Corridor Management Plan ¹	From West Way just outside of the City of South Lake Tahoe to the El Dorado County line at Tahoma.	A transportation management plan for the SR 89 corridor from immediately west of South Lake Tahoe to the El Dorado County line at Tahoma. It includes transportation and visitation management strategies to address the challenges of this area's extremely high transportation and recreation travel demand. The components common to all the strategies in the SR 89 Corridor Plan include completion of the Tahoe Trail in the corridor, increasing transit service, and eliminating parking along the highway.	The SR 89 Corridor Plan is completed. A trail feasibility study to examine the constructability of a segment of the West Shore Tahoe Trail (i.e., Cascade to Meeks trail) is underway.

Project Name	Location	Description	Project Status
Lake Tahoe Shoreline Plan ¹	Lake Tahoe shorezone	This plan expands and regulates the number of structures, including moorings and piers, permitted within the shorezone of Lake Tahoe. It also includes design and location standards for shorezone facilities, such as marinas.	Implementation
Mayala Wata Restoration at Meeks Creek ²	Meeks Meadow	A restoration project to improve ecological function of 200 meadow acres and tribal cultural opportunities within the Meeks Creek watershed. It also involves treatment of 100 acres of dense fuels in upland forest surrounding the meadow.	Implementation
Lake Tahoe West Restoration Strategy ²	Federal, state, local, and private lands on the California side of the Tahoe Basin, from Emerald Bay to Olympic Valley	A landscape restoration strategy to guide restoration activities on 60,000 acres. The goal of this program is to increase the resilience of this landscape and to protect against prolonged drought, climate change, and extreme fire.	Planning and environmental review stages
Fuels Reduction and Understory Burning, California State Parks ²	Multiple areas on California State Park lands near the communities on the west shore and north shore of Lake Tahoe	California Department of Parks and Recreation to conduct fuels reduction activities on up to 2,012 acres in Burton Creek State Park, D.L. Bliss State Park, Ed Z'berg-Sugar Pine Point State Park, Emerald Bay State Park, Tahoe State Recreation Area, and Ward Creek Unit.	Project implementation is underway and is anticipated to be completed within the next few years.
West Shore Wildland Urban Interface (WUI) Hazardous Fuel Reduction ²	Multiple areas on LTBMU lands in the west shore area of Lake Tahoe, within the WUI between Emerald Bay and Burton Creek State Park	Proposes vegetation and fuels treatments to reduce stand densities and reduce fuel loading and continuity.	Project implementation has begun, and treatments are planned to occur through 2024.
Tahoe Program Timberland EIR ²	Approximately 17,490 acres of private, local jurisdiction, federal, and California Tahoe Conservancy (Conservancy) lands both in the WUI and select contiguous areas of general forest outside of the WUI throughout the California side of the Tahoe Basin.	The proposed program consists of a long-term, vegetation management program to reduce forest fuels that can contribute to large, high-severity wildfires.	Program implementation is expected to begin in 2022

¹ Recreation Initiatives

² Landscape Restoration/Wildfire Risk Reduction Initiatives

Source: Compiled by Ascent Environmental 2021