

# **3 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

## **3.1 APPROACH TO THE ENVIRONMENTAL ANALYSIS**

As described in Chapter 1, “Introduction,” this is a joint environmental impact report (EIR) under the California Environmental Quality Act (CEQA) and its Guidelines, environmental impact statement (EIS) under the Tahoe Regional Planning Agency (TRPA) Code of Ordinances and Rules of Procedure, and an environmental impact statement (EIS) under the National Environmental Policy Act (NEPA) and its regulations adopted by the Council on Environmental Quality and Federal Highway Administration (FHWA). The overall content requirements of environmental documents are similar, although some terminology and content details vary between the three sets of environmental statutes and regulations. This EIR/EIS/EIS contains the necessary elements to satisfy the pertinent CEQA, TRPA, and NEPA requirements. The lead agencies preparing this joint document are Tahoe Transportation District (CEQA), TRPA, and FHWA for NEPA (including both the California and Nevada Divisions of FHWA). As a result of the Project Development Team (PDT) meetings, the EIR/EIS/EIS is prepared in accordance with the California Department of Transportation (Caltrans) Standard Environmental Reference and incorporates TRPA environmental review requirements.

### **3.1.1 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 (i.e., locally preferred action in this document). 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 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.

### **3.1.2 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 environmental impact statement (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 (i.e., locally preferred action), 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 (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 five years, TRPA evaluates the attainment status of all TRPA threshold standards. The latest TRPA Threshold Evaluation was completed in April 2012 (TRPA 2012). Pursuant to TRPA Code Section 4.4, TRPA is required to find that the project would not cause the environmental threshold carrying capacities to be exceeded. The EIR/EIS/EIS helps to inform TRPA in making the findings; however, the specific threshold analyses and findings will be contained in staff reports presented to the TRPA Governing Board during consideration of certification of this EIR/EIS/EIS and approval of a project alternative at the conclusion of the environmental review process.

### 3.1.3 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 US 50/South Shore Community Revitalization Project is a proposed action subject to NEPA, because it includes highway improvements proposed for FHWA funding (23 Code of Federal Regulations [CFR] 771.107[b]). When the significance of impacts of a transportation 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 CEQA EIR and TRPA EIS, FHWA 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 FHWA regulations for implementing NEPA, including Environmental Impact and Related Procedures (23 CFR 771), *Environmental Impact and Related Procedures*. FHWA guidance complementing the regulations were issued in the form of a Technical Advisory (T.6640.8a), *Guidance for Preparing and Processing Environmental and Section 4(f) Documents*. The Technical Advisory provides detailed information on the contents and processing of environmental documents. Additional guidance and information on the NEPA process and other environmental requirements are found in FHWA's Environmental Guidebook. The Guidebook includes up-to-date information to accelerate the delivery of transportation projects. It includes information on FHWA policy and guidance and provides links to transportation and environment websites and resources related to specific technical topics, such as air quality, biological resources, community impacts, cultural resources, Section 4(f), visual impacts, and water quality.

### 3.1.4 Incorporation by Reference

TRPA and the Tahoe Metropolitan Planning Organization (TMPO) prepared a program EIR/EIS for the environmental review and approval of the Lake Tahoe Regional Transportation Plan (RTP, also known as *Mobility 2035*) and Sustainable Communities Strategy (SCS, for the California portion of the Lake Tahoe Region) (TMPO and TRPA 2012). This program-level document provides a regional consideration of cumulative effects and includes broad policy alternatives and program mitigation measures that are equally broad in scope. The 2017 Regional Transportation Plan (2017 RTP), which is an update to the 2012 RTP, and its joint CEQA/TRPA environmental document have been circulated for public review. The vision and goals of the 2017 RTP were based on the 2012 RTP. The projects listed in the 2017 RTP are substantially similar to those in the 2012 RTP, and the US 50/South Shore Community Revitalization Project is included in both documents.

TRPA and TMPO have prepared a joint CEQA Initial Study/TRPA Initial Environmental Checklist for the 2017 plan as a supplement to the 2012 RTP EIS/EIR, that relies largely on that document's analysis of potential environmental impacts and mitigation measures. Pursuant to CEQA Guidelines Section 15163, a supplement to the EIR need contain only the information necessary to make the previous EIR adequate for the project, as revised. TMPO intends to continue to rely on the 2012 document, as supplemented, so the

environmental analysis in the 2012 document is still applicable. Because the approved RTP/SCS EIR/EIS includes the proposed US 50/South Shore Community Revitalization Project, some of its environmental effects, including cumulative effects, have been considered at the program level. Per the implementing regulations for NEPA (40 CFR 1502.21), “[a]gencies shall incorporate material into an [EIS] by reference when the effect will be to cut down on bulk without impeding agency and public review of the action. The incorporated material shall be cited in the statement and its content briefly described.” Thus, this EIR/EIS/EIS incorporates the RTP/SCS EIR/EIS by reference. It is available for review on the TMPO’s webpage (<http://tahoempo.org/Mobility2035/>) and cited and summarized in this document, where appropriate.

### 3.1.5 Contents of Environmental Analysis Sections

This environmental analysis provides a comparable level of detail regarding the environmental impacts of all of the US 50/South Shore Community Revitalization Project alternatives under consideration. The analysis of the proposed roadway, bicycle, and pedestrian improvements has been prepared at a project-specific level of analysis, based on conceptual engineering plans prepared for the alternatives. The analysis of the three mixed-use development options has been prepared at a program level of analysis, because their description involves proposed land uses at the three sites, rather than design concepts. The mixed-use development project component, which extends beyond the minimum Uniform Relocation Act requirements, is not FHWA’s action as part of the proposed project.

Discussion of each technical topic is contained in Sections 3.2 through 3.16. Section 3.17 contains a discussion of the relationship between local short-term uses of the human environment and the maintenance and enhancement of long-term productivity. Section 3.18 discusses irreversible and irretrievable commitments of resources that would be involved in the project. Section 3.19 contains a discussion of cumulative impacts in the context of other existing and proposed development near the project site. Chapter 3 includes the evaluation of all environmental topics originally identified for review in the Notice of Preparation (NOP)/Notice of Intent (NOI) for the Draft EIR/EIS/EIS and issue areas identified in the TRPA Initial Environmental Checklist. Appendix A of this EIR/EIS/EIS contains the NOP/NOI and the Scoping Summary Report, which includes the comments received during public scoping conducted for the EIR/EIS/EIS. Other appendices have been included to provide ease of access to important technical information.

In accordance with CEQA, TRPA, and NEPA requirements, this environmental analysis examines 15 technical topics. The impacts in Sections 3.2 through 3.16 address effects from implementation of Alternatives A through E. Technical topic areas consist of the following:

- ▲ Section 3.2, “Land Use”
- ▲ Section 3.3, “Parks and Recreational Facilities”
- ▲ Section 3.4, “Community Impacts”
- ▲ Section 3.5, “Public Services and Utilities”
- ▲ Section 3.6, “Traffic and Transportation”
- ▲ Section 3.7, “Visual Resources/Aesthetics”
- ▲ Section 3.8, “Cultural Resources”
- ▲ Section 3.9, “Floodplains”
- ▲ Section 3.10, “Water Quality and Stormwater Runoff”
- ▲ Section 3.11, “Geology, Soils, Land Capability, and Coverage”
- ▲ Section 3.12, “Hazards, Hazardous Materials, and Risk of Upset”
- ▲ Section 3.13, “Air Quality”
- ▲ Section 3.14, “Greenhouse Gas Emissions and Climate Change”
- ▲ Section 3.15, “Noise and Vibration”
- ▲ Section 3.16, “Biological Environment”

Sections 3.2 through 3.16 of this EIR/EIS/EIS are organized into the following major subsections:

**Introduction:** This section provides introductory text pertaining to each technical topic, including a brief summary of comments raised by the public in response to the Notice of Preparation, and issues dismissed from further discussion in the section.

**Regulatory Setting:** This section presents the applicable regulatory framework and planning context, if any, for the specific technical issue as it relates to TRPA, federal, state, and local requirements. For applicable resource sections, the Regulatory Setting also includes a discussion of the threshold standard attainment status for the relevant TRPA Environmental Threshold Carrying Capacities: water quality, soil conservation, air quality, vegetation, wildlife, fisheries, noise, recreation, and scenic resources.

**Affected Environment:** This section describes the environmental setting. The environmental setting presents the existing environmental conditions in the project site and surrounding study area, as appropriate. The affected environment constitutes the baseline, or point of comparison, for determining the environmental effects of the alternatives. The extent of the environmental setting area differs among the resources, depending on the locations where impacts would be expected. For example, air quality impacts are assessed for the regional air basin, while aesthetic impacts only need to be assessed for the immediate study area.

**Environmental Consequences:** This section identifies and describes the methods and assumptions used in the environmental impact analysis, the criteria used to determine the level of significance of environmental impacts, the environmental effects of implementing the project alternatives, and feasible minimization and mitigation measures that could reduce potentially significant and significant impacts. The potential impacts of the alternatives are determined by comparing estimated environmental effects of each alternative with the baseline condition, which is the existing affected environment (as defined above). The significance determination for each impact is also determined with this comparison. Project impacts are numbered sequentially in each section. A summary impact statement precedes a more detailed discussion of the environmental effects of the alternatives. The level of significance of the impact is also defined for each alternative, prior to the application of any mitigation measures, if they are needed, and then, again, after the application of proposed mitigation measures. The discussion is organized by alternative and includes the analysis, rationale, and substantial evidence upon which conclusions are drawn. Some alternatives may have the same or similar impacts. In these instances, the reader is referred back to previous impact discussions to reduce redundancy.

Many environmental impacts are the subject of existing laws and regulations intended to protect environmental quality. For instance, the TRPA environmental threshold standards and Code requirements; federal environmental laws, regulations, and permitting requirements; and state environmental laws, regulations, and permitting requirements each may mandate either specific actions or achievement of performance standards. Existing laws, regulations, or permits that specify mandatory and prescriptive actions to be implemented by a project that would avoid or minimize an impact are considered before determining impact significance. If a residual adverse or significant impact would occur after considering implementation of existing laws, regulations, or permit requirements then additional avoidance or minimization measures are proposed to further reduce the significant or adverse impact. Where existing laws or regulations specify a mandatory permit process for future projects, performance standards without prescriptive actions to accomplish them, or other requirements that allow substantial discretion in how they are accomplished, or have a substantial compensatory component, the level of significance is determined before applying the influence of the regulatory requirements. In this circumstance, the impact would be potentially significant, significant, or adverse, and the regulatory requirements would be included as an avoidance, minimization, or mitigation measure.

This document provides environmental review at a programmatic level for the three proposed mixed-use development sites for Alternatives B, C, and D. These are the preferred sites for constructing replacement housing for displaced residents. Future development of the three mixed-use development sites identified in Exhibits 2-9 through 2-12 would be subject to subsequent project-level environmental review and permitting by the City of South Lake Tahoe and/or TRPA, with the permitting agency determined based on the size, nature, and location of the future project on each of these sites. If the replacement housing for displaced residents is constructed outside of one of these three sites, then full, project-level environmental review would be required. Under such circumstances, the replacement housing would still be constructed prior to

displacing residents for the purposes of constructing the proposed transportation improvements in California. Project-level environmental documents would require identification of, and mitigation for any potentially significant environmental impacts, and would be prepared in light of the information contained in the program-level analysis in this environmental document.

**Methods and Assumptions:** This section describes the methods, process, procedures, and/or assumptions used to formulate and conduct the impact analysis. Where relevant, this section may also include dialogue on any issue that is not discussed in the impacts section (i.e., where no impact would be expected and the reasoning behind this conclusion).

Design of the action alternatives has been an on-going process and refinements have been made for this EIR/EIS/EIS since the early phase of alternatives formulation. As a result, background studies have been revised as necessary to provide the best available information. Some of the background studies have been updated to reflect more recent design refinements identified for the project. For example, the Noise Study Report (Caltrans 2015) and Caltrans Project Report Traffic Operations Analysis Update Technical Memorandum (Wood Rodgers 2016). The analysis of alternatives in this EIR/EIS/EIS is based on the design refinements described in Section 2.4.8, “Further Development of Project Design.”

**Significance Criteria:** This section provides the criteria used in this document to define the level at which an impact would be considered significant, in accordance with CEQA, NEPA, and the TRPA Code of Ordinances. Significance criteria used in this EIR/EIS/EIS are based on the checklist presented in Appendix G of the State CEQA Guidelines; the TRPA Initial Environmental Checklist; factual or scientific information and data; and regulatory standards of Federal, State, and local agencies. While CEQA requires a determination of impact significance for each impact discussed in an EIR based on significance criteria, 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. The significance thresholds used in this document also encompass the factors taken into account under NEPA to evaluate the context and the intensity of the effects of an action.

**Environmental Effects of the Project Alternatives:** For each alternative, environmental effects are listed numerically and sequentially throughout each section. Analysis of each alternative is included under each impact. The discussion for each alternative is broken down into the impacts of the transportation improvements and the impacts of the proposed mixed-use development. A **bold** font impact statement precedes the discussion of each impact and provides a summary of each impact and its level of significance. Impact conclusions are made using the significance criteria described in each section and include consideration of the “context” of the action and the “intensity” (severity) of its effects in accordance with NEPA guidance (40 CFR 1508.27). To distinguish between NEPA environmental consequences and CEQA and TRPA impact determinations, each impact includes a concluding statement for NEPA environmental consequences and a concluding statement for CEQA and TRPA impact determinations.

The level of impact of the alternatives is determined by comparing estimated effects with baseline conditions. Under CEQA, the existing setting (as described in Affected Environment, above) normally constitutes the baseline point of comparison against which a significance determination is made. Under NEPA, the No Build 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. Alternative-specific analyses are conducted to evaluate each potential impact on the existing environment. This assessment also specifies why impacts are found to be significant, potentially significant, or less than significant, or why there is no environmental impact or a beneficial effect for the purposes of CEQA and TRPA and why impacts are found to be adverse, not adverse, or would have no environmental impact for the purposes of NEPA. A “potentially significant” impact and “significant” impact are treated the same under CEQA and TRPA in terms of procedural requirements and the need to identify feasible mitigation. For the purposes of NEPA, an “adverse” impact would be required to identify additional avoidance, minimization, and/or mitigation measures. 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.

Both direct and indirect effects of the alternatives are evaluated for each environmental resource area. Direct effects are those that are caused by the action and occur at the same time and place. Indirect effects are reasonably foreseeable consequences that may occur at a later time or at a distance that is removed from the study area, such as growth-inducing effects and other effects related to changes in land use patterns, population density, or growth rate, and related effects on the physical environment.

**Avoidance, Minimization, and/or Mitigation Measures:** Mitigation measures are identified, where feasible, to avoid, minimize, rectify, reduce, or compensate for significant, potentially significant, or adverse impacts of the project, in accordance with the State CEQA Guidelines (section 15126.4), the TRPA regulations, and the regulations implementing NEPA. A level of significance after the application of mitigation measures is provided for the purposes of CEQA and TRPA, as well as, including an indication of whether a significant, unavoidable effect would occur. For NEPA purposes, a determination is made as to whether additional avoidance or minimization measures are needed or feasible beyond the design features included in the alternatives.