

**ATTACHMENT C:
Findings Documents**

ATTACHMENT C 1:
Findings for Certification of the Shoreline Plan Environmental Impact Statement

Findings for Certification of the Shoreline Plan
Environmental Impact Statement

Pursuant to TRPA Rules of Procedure, certification of the Final Environmental Impact Statement (Final EIS) is defined as a finding that the Final EIS is in compliance, procedurally and substantially, with Article VII of the Compact, Chapter 3 of the Code, and Article 6 of the Rules of Procedure. The following findings, when made affirmatively, certify that the Shoreline Plan Final EIS is in compliance with the applicable criteria.

1. Code Section 3.7.1 (see also TRPA Compact VII(a)(1,3,4, and 5), and TRPA Compact VII(b)) Preparation of EIS:

When preparing an EIS, TRPA shall:

1. Finding: Utilize a systematic interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and decision making which may have an impact on man's environment.

Rationale: The Final EIS utilizes a systematic interdisciplinary approach that insures the integrated use of the natural and social sciences and the environmental design arts in planning and in decision making which may have an impact on man's environment.

(See Draft EIS Executive Summary chapter; Chapter 1, Introduction; Chapter 2, Description of Proposed Project and Alternatives; and Chapter 17, Cumulative Impacts).

2. Finding : Study, develop and describe appropriate alternatives to recommended courses of action for any project which involves unresolved conflicts concerning alternative uses of available resources.

Rationale: The Final EIS developed and analyzed a range of policy and project Alternatives, which are described in Chapter 3, "Description of Proposed Project and Alternatives", of the EIS. Pursuant to TRPA requirements for the consideration of alternatives, the Draft EIS evaluates the potential impacts of four different alternatives, each of which takes a different approach to supporting recreation along the shoreline, refining permitting processes for shorezone structures and standards for the design of new and redeveloped structures, and providing policies and regulations that govern watercraft operations that accelerate the attainment and maintenance of threshold standards. The Draft Shoreline Plan was reflected in the Draft EIS as "Alternative 1 - Proposed Shoreline Plan."

3. Finding: Consult with and obtain the comments of any federal, state or local

agency which has jurisdiction by law or special expertise with respect to any environmental impact involved. Copies of such states and the comments and views of the appropriate federal, state and local agencies which are authorized to develop and enforce environmental standards shall be made available to the public and shall accompany the project through the review processes.

Rationale: The EIS consultant and TRPA staff consulted with and obtained comments from representative federal, state, and local agencies that have jurisdiction by law or special expertise with respect to any environmental impact involved with the Shoreline Plan location. The Draft EIS was circulated through the California State Clearinghouse of the Governor's Office of Planning and Research and the Nevada State Clearinghouse. In addition, TRPA staff met with numerous relevant federal, state, and local agencies to provide information on the alternatives, answer questions, and solicit written comments. Copies of written comments on the environmental analysis obtained from the various federal, state, and local agencies that are authorized to enforce environmental standards have been made available to the public and were reviewed at the various stages of the environmental review and have been incorporated into the Final EIS.

(See Final EIS Chapter 3, Comments and Responses.)

4. Findings: Consult the public during the environmental impact statement process and solicit views during a public comment period of not less than 60 days.

Rationale: TRPA used several methods to solicit input on the Draft EIS. A Notice of Preparation was issued to inform agencies and the public that an EIS was being prepared for the Shoreline Plan and to solicit their views regarding the scope and content of the EIS. The NOP was distributed on July 12, 2017, and comments were received through August 16, 2017. Scoping meetings were held with the TRPA Advisory Planning Commission and the TRPA Governing Board to provide information on the environmental analysis and to obtain oral comments. Public input on the scope of the Shoreline Plan also was obtained through the Joint Fact-Finding Committee. All written and oral comments received during EIS scoping were summarized by TRPA and included in the Scoping Summary Report in Appendix B of the Draft EIS.

On May 8, 2018, the Draft EIS was released for public review and comment for a 62-day period (ending July 9, 2018). The Draft EIS and/or a Notice of Availability was distributed directly to public agencies (including potential responsible and trustee agencies), interested parties, and organizations, and approximately 33,000 notices were mailed out to each property owner in the Lake Tahoe Region. The Draft EIS was made available for review during normal business hours at the TRPA offices in Stateline, NV. The Draft EIS was also available online at the TRPA website

(www.trpa.org/document/projects-plans/), and the Shoreline Plan website (www.shorelineplan.org). Oral comments were provided at the TRPA Governing Board and Advisory Planning Commission (APC) meetings in May and June 2018. Written comments were also received at two public workshops in June 2018. At each of these meetings, TRPA staff made presentations to describe the proposed Shoreline Plan and to discuss key environmental issues identified in the Draft EIS.

(See Final EIS Section 1.1, Background; Chapter 2, Revisions to the Proposed Shoreline Plan; Chapter 3, Comments and Responses; and Chapter 4, Corrections and Revisions to the Draft EIS.)

5. Finding: Make available to States, counties, municipalities, institutions, and individuals, advice and information useful in restoring, maintaining and enhancing the quality of the region's environment.

Rationale: The Final EIS makes available to states, counties, municipalities, institutions and individuals, advice and information useful in restoring, maintaining and enhancing the quality of the Region's environment. Table ES-1 of the Executive Summary chapter of the Draft EIS summarizes the potential environmental impacts that would result from implementation of Alternatives 1 - 4 of the Shoreline Plan. Chapters 4 - 17 of the Draft EIS describe in detail for each of 13 technical topics the environmental impacts that would result from implementation of Alternatives 1 - 4 for the Shoreline Plan. These sections each contain information relevant to that topic on the regulatory setting, affected environment, environmental consequences, and feasible mitigation measures that could reduce potentially significant impacts.

(See Draft EIS Executive Summary, Table ES-1 Summary of Impacts and Mitigation Measures, at pgs. ES-4 through ES-32, and Chapter 17, Cumulative Impacts).

(2) Code Section 3.7.2 (see also TRPA Compact VII(a)(2))

Contents of EIS: An EIS shall include, at a minimum, the following:

1. Finding: Description of project:

Rationale: The Final EIS includes a description of the project.

(See Draft EIS Chapter 2, Description of Proposed Project and Alternatives; and Final EIS Chapter 2, Revisions to the Proposed Shoreline Plan)

2. Finding: The significant environmental impacts of the proposed project.

Rationale: The Final EIS includes the identified significant environmental impacts of the proposed Shoreline Plan. The Draft EIS identified a number of significant and potentially significant environmental effects (or impacts) that each Shoreline Plan alternative would cause or contribute to. These significant effects can generally be avoided or substantially lessened through the adoption of feasible mitigation measures.

(See Draft EIS Executive Summary chapter, Table ES-1 Summary of Impacts and Mitigation Measures)

3. Finding: Any significant adverse environmental effects which cannot be mitigated should the project be implemented.

Rationale: Most adverse effects could be mitigated to less-than-significant levels. However, even with the application of feasible mitigation measures, implementation of all of the alternatives would result in a significant and unavoidable impact related to greenhouse gas emissions and climate change. This impact is summarized below.

Greenhouse Gas Emissions and Climate Change: GHG emissions resulting from construction and demolition of boating facilities and on-road motor vehicle trips to and from new boating facilities could be substantial over the build-out period of the Shoreline Plan. Implementation of Mitigation Measure 11-1 would reduce some of the anticipated future GHG emissions at buildout. Given the uncertainty about the magnitude of the increase in GHG emissions from projects accommodated by the Shoreline Plan and the uncertain effect of these mitigation measures, it is possible that the Shoreline Plan could have a considerable contribution to the cumulative impact of GHG emissions and climate change. This finding is consistent with the RPU EIS analysis for GHGs.

(See Draft EIS Executive Summary chapter; and Chapter 11, Greenhouse Gas Emissions and Climate Change)

4. Finding: Alternatives to the proposed project.

Rationale: The Final EIS includes an analysis of alternatives to the Shoreline Plan. See Certification Findings 1(2) above.

(See Draft EIS Executive Summary chapter; Draft EIS Chapter 2, Proposed Project and Alternatives; and Final EIS Chapter 4, Corrections and Revisions to the Draft EIS)

5. Finding: Mitigation measures which must be implemented to assure meeting standards of the region.

Rationale: The Final EIS includes an analysis of mitigation measures that must be

implemented to assure meeting standards of the Region. All required mitigation measures that are specific to the Shoreline Plan have been incorporated into the Final Shoreline Plan, the Shoreline Implementation Program, and Final Draft Code Amendments. In adopting these findings, the Governing Board hereby adopts and commits to implement the Mitigation Measures as incorporated into the Final EIS. The mitigation measures as incorporated into the Final Shoreline Plan and the Final Draft Code Amendments represent binding commitments with which TRPA must comply.

(See Draft EIS Executive Summary chapter, Table ES-1 Summary of Impacts and Mitigation Measures; Final EIS Chapter 4, Corrections and Revisions to the Draft EIS)

6. Finding: The relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity.

Rationale: The Final EIS includes an analysis of the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity.

The Draft EIS describes the effects of the Shoreline Plan alternatives, which balance recreational opportunities with preservation of the environment through allocation and regulation of shorezone facilities. The Draft EIS analyses impacts at a specificity appropriate for the program-level parameters identified in the alternatives. Individual projects would be further assessed at the project level as they are proposed. Short-term use of the environment is generally limited to construction, while long-term commitment of raw land would be required for new structures.

(See Draft EIS Chapter 18, Section 18.2, Relationship between the Short-Term Uses of the Environment and the Maintenance and Enhancement of Long-Term Productivity)

7. Finding: Any significant irreversible and irretrievable commitments of resources which would be involved in the proposed project should it be implemented.

Rationale: The Final EIS includes an analysis of any significant irreversible and irretrievable commitments of resources which would be involved in each of the alternatives should they be implemented.

The Shoreline Plan alternatives balance environmental preservation and restoration with new shorezone development and propose a range of development levels. Development under the alternatives would require varying degrees of nonrenewable resources, including fossil fuels and raw materials. Landscape disruption would also result from placement of new

shorezone structures, resulting in changes in air quality, coverage, and water quality, which would be irreversible.

(See Draft EIS Chapter 18, Section 18.3, Irreversible and Irretrievable Commitments of Resources and Significant Irreversible Environmental Changes)

8. Finding: The growth-inducing impact if the proposed project.

Rationale: The Final EIS includes an analysis of the growth-inducing impact of the alternatives.

The Regional Plan caps growth in the Tahoe Region through development caps on commodities. The types of shorezone structures proposed under the Shoreline Plan alternatives relate to the recreational experience at Lake Tahoe and would neither accommodate nor facilitate an increase in the capacity of the Region to support new residents, visitors, workers, or students. The increase in the number of day-use visitors to the Region could increase with development of new public access facilities; however, longer-duration visitation would not be influenced by the Shoreline Plan, as it is largely driven by the availability of overnight accommodations.

(See Draft EIS Chapter 18, Section 18.4, Growth-Inducing Impacts)

(3) Code Section 3.7.3 (see also TRPA Compact VII(c))

Inclusion of Other Data and Information

1. Finding: An environmental impact statement need not repeat in its entirety any information or data which is relevant to such a statement and is a matter of public record or is generally available to the public, such as information contained in an environmental impact report prepared pursuant to the California Environmental Quality Act or a federal environmental impact statement prepared pursuant to the National Environmental Policy Act of 1969. However, such information or data shall be briefly described in the environmental impact statement and its relationship to the environmental impact statement shall be indicated.

Rationale: The Final EIS refers to the entirety of information and data which are relevant to the preparation of the document and are a matter of public record or are generally available to the public. Such information or data is briefly described in the EIS and its relationship to the EIS is so indicated.

(See EIS and Appendices, including Draft EIS Chapter 19, References and Persons Consulted, and Final EIS Chapter 5, References)

(4) Rules of Procedure 6.13

Draft EIS:

1. Finding: The draft EIS shall include, at a minimum, the elements listed in subsection 3.7.2 of the Code and a list of all federal, state and local agencies or other organizations and individuals consulted in preparing the draft.

Rationale: The Draft EIS includes the elements listed in subsection 3.7.2 of the TRPA Code and a list of all federal, state, and local agencies or other organizations and individuals consulted in preparing the draft.

(See Section 2 Findings for Subsection 3.7.2 of the Code above regarding contents of the EIS, Section 1(3) Finding above regarding federal, state, and local agencies consulted, and Final EIS Chapter 1, Section 1.3, List of Commenters. Also see Final EIS Chapter 3 Comments and Responses)

2. Finding: Summary: A draft EIS in excess of 30 pages shall include a summary, preferably less than 10 pages in length, which identifies at a minimum: a brief project description; each significant adverse effect with a summary of proposed mitigation measures or alternatives that would reduce or avoid that effect; and areas of controversy known to TRPA.

Rationale: The Draft EIS includes a summary that includes a brief description of the proposed project and alternatives, including each significant adverse effect with a summary of proposed mitigation measures or alternatives that would reduce or avoid that effect, and areas of controversy known to TRPA.

(See Draft EIS, Executive Summary, pgs. ES-2 to ES-32)

3. Finding: Comment Period: The draft EIS shall be circulated for public comment for a period not less than 60 days. TRPA may hold a public hearing on the draft EIS.

Rationale: TRPA made the Draft EIS available to public agencies, citizen groups, and interested individuals for a 62-day public review period, from May 8, 2018 through July 9, 2018. Copies of the Draft EIS were available for public review during normal business hours at the TRPA offices. Copies of the Draft EIS were also available for review online at the TRPA website (www.trpa.org/document/projects-plans/), and the Shoreline Plan website (www.shorelineplan.org). In addition, the public was consulted with in a series of three public hearings and two public workshops during the public comment period on the Draft EIS.

During the review period, the public was invited to public comment meetings held by APC and Governing Board and public workshops hosted by TRPA. Three public meetings were held to solicit comments on the Draft EIS: (1) TRPA Governing Board Meeting on May 23, 2018; (2) TRPA

APC Meeting on June 13, 2018; and (3) TRPA Governing Board Meeting on June 27, 2018. Public workshops to receive written comments were held on June 4, 2018 at the TRPA offices in Stateline, Nevada and on June 6, 2018 at the North Tahoe Events Center in Kings Beach, California. The public was asked to provide written or oral comments at the meetings or written comments before closure of the public review period. In response to the call for review and public comment on the draft documents, 149 comment letters and presentations of oral testimony were received: five comment letters from public agencies, 15 comment letters from stakeholder organizations (including environmental and business organizations), 68 comment letters from individuals, nine comment forms from open houses, and 52 oral comments received at TRPA public meetings and open houses.

(See Final EIS Chapter 1, Introduction; Chapter 2, Revisions to the Proposed Shoreline Plan; and Chapter 3, Comments and Responses)

4. Finding: Notice of Comment Period: The comment period shall not commence before the date of publication of a notice in a newspaper whose circulation is general through the region. The notice shall include a brief description of the project or matter under consideration, the date the comment period commences, the date by which comments must be received, and that copies of the draft EIS may be obtained by contacting TRPA and are available for public review at TRPA's offices. Copies of the draft EIS shall be mailed to California and Nevada state clearinghouses and appropriate federal agencies, on or before the beginning date of the comment period. Notice of the comment period shall be given to affected property owners pursuant to Article XII of these Rules.

Rationale: The Draft EIS Notice of Comment Period was properly noticed by TRPA. All procedures were followed regarding the availability of the Draft EIS for the public's review, and copies of the Draft EIS were mailed to California and Nevada State Clearinghouses and appropriate federal agencies, on or before the beginning date of the comment period. Copies of the Draft EIS were available for public review during normal business hours at TRPA. Copies of the Draft EIS were also available for review on the TRPA and Shoreline Plan websites. Notice of the Draft EIS was also aired on Capital Public Radio on May 7, 2018 and published in the Tahoe Daily Tribune on May 12, 2018. Additionally, approximately 33,000 notices were mailed out to each property owner in the Lake Tahoe Region. Notice of the comment period was given to the public in accordance with Article XII of TRPA's Rules of Procedure.

(See May 8, 2018 Notice of Availability)

5. Finding: Request for Comments: TRPA shall request comments on draft EIS's from

any federal, state or local agency which has jurisdiction by law or special expertise with respect to any environmental impact involved. Notice of a request for comments shall be given by deposit of the request, in the U.S. Mail, first class mail, postage prepaid. Notice shall be given no later than the date the comment period commences. Separate notice under this section is not necessary if notice of the draft EIS has been given to the agency pursuant to subsection 6.13.3 above.

Rational: TRPA provided notice of the Draft EIS pursuant to subsection 6.13.3, as described in the Section 1(4) Finding above.

(See Final EIS Chapter 3, Comments and Responses)

(5) Rules of Procedure 6.14

Final EIS:

1. Finding: At the conclusion of the comment period, TRPA shall prepare written responses to all written comments received during the comment period and may respond to oral or late comments. The response to comments may be in the form of a revision to the draft EIS, or may be a separate section in the final EIS that shall note revisions to the draft EIS, if any. The final EIS shall include, at a minimum: the draft EIS, or a revision; comments received on draft, either verbatim or in summary; the response to comments; and a list of persons, organizations and agencies commenting in writing on the draft EIS.

The final EIS may incorporate by reference computer data recorded on disk, videotape, slides, models and similar items provided summaries of such items are included in the final EIS. The final EIS may also include oral testimony given at APC or Board hearings.

Rationale: At the conclusion of the comment period, TRPA prepared written responses to all written comments received during the comment period and responded to all oral comments. The Final EIS includes a section (Chapter 3, Corrections and Revisions to the Draft EIS) that notes revisions to the Draft EIS. Additional revisions to the Draft EIS are incorporated by reference in Final EIS Chapter 3, Comments and Responses. The Final EIS includes:

- (a) List of Commenters (Final EIS Chapter 1, Section 1.3). This includes a list of persons, organizations, and agencies commenting in writing or through oral testimony on the Draft EIS and responses to these comments (Final EIS Chapter 3, Comments and Responses).
- (b) Revisions to the Proposed Shoreline Plan (Final EIS Chapter 2, Revisions to the Proposed Shoreline Plan). This chapter describes changes to the proposed Shoreline Plan that TRPA and the Steering

Committee have developed to address comments raised on the May 8, 2018 version of the proposed Shoreline Plan.

- (c) Revisions and Corrections to the Draft EIS. This chapter notes revisions to the Draft EIS (Final EIS, Chapter 4 Revisions and Corrections to the Draft EIS.
- (d) Public Comments on the Draft EIS. This includes all comments received on the Draft EIS, verbatim as to written comments and oral testimony (Final EIS, Chapter 3 Comments and Responses).

The Final EIS incorporates by reference computer data recorded on disk, videotape, slides, models, and similar items and has provided summaries of such items in the Final EIS (See Draft EIS Chapter 19, References and Persons Consulted, and Final EIS Chapter 5, References).

**ATTACHMENT C 2:
Required Findings for Adoption of the Shoreline Plan**

REQUIRED FINDINGS FOR ADOPTION OF THE SHORELINE PLAN

Required Findings: The following Chapters 3 and 4, findings must be made prior to adoption of the proposed Shoreline Plan (Plan):

Chapter 3 Findings: Prior to approving a project for which an EIS was prepared, TRPA shall make either of the following findings for each significant adverse effect identified in the EIS:

1. Finding: Changes or alterations have been required in or incorporated into such project to avoid or reduce the significant adverse environmental effects to a less-than-significant level; or

Specific considerations, such as economic, social, or technical, make infeasible the mitigation measure or project alternatives discussed in the environmental impact statement on the project.

Rationale: TRPA has prepared the Shoreline Plan to amend the TRPA Regional Plan, to regulate development along the shoreline of Lake Tahoe in order to achieve and maintain the environmental thresholds.

All of the adverse environmental effects associated with the proposed Shoreline Plan may be avoided or reduced to a less-than-significant level with the adoption of the mitigation measures set forth in the EIS, with the exception of Impact 11-1, Greenhouse Gas (GHG) Emissions and Climate Change.

The Findings provided in Table C-1 (at the end of this document) summarize the significant environmental effects presented in the EIS and a discussion of the rationale supporting these findings. Additional rationale supporting these findings is included below.

The Shoreline Plan EIS analyzes the environmental effects of four alternatives, including the proposed Shoreline Plan and the no project alternative (Alternative 2 - Maintain Existing TRPA Shorezone Regulations). Each of the Shoreline Plan alternatives represents a different approach to achieving the purpose and objectives of the Shoreline Plan and attaining and maintaining thresholds. The alternatives address structures that could be developed or situated in the shorezone, including marinas, piers, buoys, and boat ramps. With consideration of the comments received on the Draft EIS, minor changes were added to the proposed Shoreline Plan and Final EIS. These revisions included changes to mitigation measures related to recreation (Mitigation Measure 8-1a: Maintain nonmotorized navigation within the no-wake zone), scenic resources (Mitigation Measure 9-1a: Offset the visible mass of buoys), biological resources (Mitigation Measure 14-2: Conduct preconstruction surveys, avoid potential construction impacts, avoid potential recreation impacts to Tahoe yellow cress plants, and compensate for unavoidable loss of Tahoe Yellow Cress), and public health and safety (Mitigation Measure 15-1a: Maintain nonmotorized navigation within the no-wake zone).

In considering revisions to the proposed Shoreline Plan (i.e., Alternative 1), TRPA has been cognizant of its obligation under the Compact to avoid or reduce the significant adverse environmental effects to a less-than-significant level, to the extent feasible. The Governing Board's discretionary action to incorporate these revisions into the Final Shoreline Plan involve the consideration of whether the proposed suggestion relates to an environmental effect discussed in the Draft EIS; if the proposed language represents a clear improvement, from an environmental standpoint, over the Draft Shoreline Plan; if the recommendations are feasible from an economic, technical, and legal standpoint; and if the proposed revision is consistent with the objectives of the Shoreline Plan. Chapter 4 of the Final EIS describes the changes in the proposed Shoreline Plan, which was analyzed as Alternative 1 (as modified in the Final EIS).

Some comments on the Draft EIS proposed new mitigation measures or refinements to mitigation measures for impacts found to be less than significant. The Final EIS reflects TRPA's response to all such proposals. The Final EIS provides a detailed description of how revisions to mitigation measures were incorporated in response to comments, and the rationale describing why other recommended measures were infeasible. The Governing Board notes that, because many impacts have already been determined to be less than significant, TRPA need not adopt new or additional mitigation measures with respect to such impacts.

Alternatives Considered

The EIS evaluated four alternatives to present a reasonable range of options. The range of alternatives considered in the EIS complies with Article VII(a)(3) of the Tahoe Regional Planning Compact and Section 3.7 of the TRPA Code of Ordinances (Code). Each alternative is potentially feasible, based on relevant economic, environmental, social, technological, and legal factors. The alternatives were presented and accepted by the Regional Plan Implementation Committee (RPIC) at the RPIC meeting on April 25, 2017. A reasonable range of alternatives that best met the objectives of the Shoreline Plan, and that offered an environmental advantage over the proposed project by avoiding or reducing at least one significant impact, were selected for evaluation.

The proposed Shoreline Plan is evaluated as Alternative 1 (as modified in the Final EIS). Other alternatives include reasonable variations in features of the Shoreline Plan.

The alternatives, described in detail below, are:

- Alternative 1 – Proposed Shoreline Plan
- Alternative 2 – Maintain Existing TRPA Shorezone Regulations (No Project)
- Alternative 3 – Limit New Development
- Alternative 4 – Expand Public Access and Reduce Existing Development

A good faith effort was made to evaluate a range of feasible alternatives in the EIS that are reasonable alternatives to the proposed Shoreline Plan, even when the alternatives might not fully achieve the Shoreline Plan objectives or might be more costly. As a result, the scope of alternatives analyzed in the EIS is not unduly limited or narrow.

The EIS analyzed Alternatives 1, 2, 3, and 4. The EIS contains a detailed analysis of the impacts of each of these alternatives including detailed responses to all public comments on the adequacy or completeness of the environmental review. Table ES-1 in the Draft EIS summarizes the EIS conclusions concerning the impacts of, and mitigation measures applicable to, each alternative. All changes to Table ES-1 are included in Chapter 4, Corrections and Revisions to the Draft EIS, in the Final EIS. The EIS analysis of the alternatives is summarized as follows:

Alternative 1 – Proposed Shoreline Plan

Alternative 1 was developed through a collaborative process to obtain consensus from stakeholders, to the extent possible. A steering committee of state, federal, and regional agency leadership representatives and other stakeholders developed the proposed Shoreline Plan through a series of mediated discussions, incorporating feedback from the TRPA RPIC. The proposed Shoreline Plan includes provisions for most aspects of development within the shorezone, including buoys, piers, marinas, boat ramps, and dredging activities, and it aims to adapt shoreline access and use to lower lake levels that are anticipated in the future.

The final proposed Shoreline Plan (Alternative 1 as modified in the Final EIS) will result in one beneficial impact, 29 less-than-significant impacts, 13 significant or potentially significant impacts that will be reduced to less-than-significant levels with mitigation, and one significant and unavoidable impact. The significant and unavoidable impact is in the area of GHG emissions and climate change.

The goal of this alternative is to enhance the recreational experience at Lake Tahoe, while protecting the environment and responsibly planning for the future. The Shoreline Plan will meter out new private and public development over time. At buildout, it will allow for up to 2,116 new moorings (buoys, lifts or public slips), 128 new private piers, 10 new public piers, and two new public boat ramps. Some new and existing buoys could be converted to slips and vice versa at facilities open to the public (such as marinas).

The Shoreline Plan will implement the TRPA Lake Tahoe Regional Plan adopted in December 2012, in many ways, including but not limited to:

- protecting and where feasible enhancing the environment,
- providing a fair and reasonable system of access,
- adapting to changing lake levels,
- preserving high-quality recreation and public safety, and
- implementing predictable and consistent rules.

Alternative 2 – Maintain Existing TRPA Shorezone Regulations (No Project)

The No Project Alternative would retain the existing shorezone regulations, including the Shorezone Subelement of the Regional Plan goals and policies, and the existing TRPA Shorezone Code (Chapters 80–86 of the TRPA Code). This alternative balances access and environmental protection by applying the approach that was developed under the 1987 Regional Plan. This alternative would lift the temporary moratorium on new shoreline structures that has been in place since 2010, and development of shoreline structures would occur in accordance with the existing code (Chapters 80–86).

The existing shorezone regulations are largely centered around prohibitions of shoreline structures (piers, boat ramps, and moorings) within TRPA-designated prime fish habitat. The existing TRPA Shorezone Code identifies the mechanism by which development projects in the shorezone are reviewed and defines all permissible uses and types of structures in the shorezone. The major elements of the code that are under consideration for revision with the Shoreline Plan are the development standards for shorezone structures.

Alternative 2 would result in one beneficial impact, 25 less-than-significant impacts, 16 significant or potentially significant impacts that would be reduced to less-than-significant levels with mitigation, one significant and unavoidable impact, and one impact topic that would not be affected. This alternative would result in the same significant and unavoidable impact as Alternative 1 related to GHG emissions and climate change. Thus, this alternative would not avoid the significant and unavoidable impact of the proposed Shoreline Plan (Alternative 1).

This alternative would not include a numeric cap on shoreline structures but would prohibit new structures within TRPA-designated prime fish habitat. This alternative would allow more shorezone structures than any other alternative and is the only alternative that would allow new marinas. At buildout, it would potentially allow for up to 6,936 new moorings, 476 new piers, six new boat ramps, and two new marinas.

This alternative does not reduce the significant and unavoidable impact of the proposed Shoreline Plan and would result in fewer less-than-significant impacts and more significant or potentially significant impacts that would be reduced to less-than-significant levels with mitigation.

Alternative 3 – Limit New Development

Alternative 3 reduces the potential for environmental impacts by limiting new shoreline development. This alternative would seek to concentrate motorized watercraft access at marinas and public facilities rather than at individual private facilities, and to maximize the number of people served by each new shoreline structure. This alternative would authorize fewer structures than Alternatives 1 or 2, with up to 365 new public buoys or slips, five new public piers, and one new

public boat ramp. This alternative would authorize 86 new private piers, but they would be restricted to multiple-use piers.

Alternative 3 would result in one beneficial impact, 28 less-than-significant impacts, 14 significant or potentially significant impacts that would be reduced to less-than-significant levels with mitigation, and one significant and unavoidable impact. This alternative would result in the same significant and unavoidable impact as Alternative 1 related to GHG emissions and climate change. Thus, this alternative would not avoid the significant and unavoidable impact of the proposed Shoreline Plan (Alternative 1).

Relative to the proposed Shoreline Plan, this alternative would result in one fewer less-than-significant impact and one more significant or potentially significant impact that would be reduced to a less-than-significant level with mitigation.

Alternative 4 – Expand Public Access and Reduce Existing Development

Alternative 4 expands public access to Lake Tahoe by providing new public piers and reducing existing shoreline development through transfer ratios that could reduce the overall number of shoreline structures on the lake. This alternative would allow 15 new public piers and no other new shoreline structures. The alternative would include transfer ratios that would allow some private shoreline structures to be removed and rebuilt in different locations provided the project resulted in a 2:1 reduction in the number of structures. Because this alternative would authorize no new moorings or boat ramps, it would not result in an increase in boat use. Alternative 4 includes a combination of elements from Alternative 1, the proposed Shoreline Plan, and from Alternative 3.

Alternative 4 would result in one beneficial impact, 24 less-than-significant impacts, 11 significant or potentially significant impacts that would be reduced to less-than-significant levels with mitigation, one significant and unavoidable impact, and seven impact topics that would not be affected. Alternative 4 would not authorize new boating access structures and would not have the beneficial effect related to recreation, that the proposed Shoreline Plan would. This alternative would result in the same significant and unavoidable impact, related to GHG emissions and climate change, as the proposed Shoreline Plan. It does not affect seven impact topics that are affected by the other alternatives.

Chapter 4 Findings: The following findings must be made prior to adopting the Shoreline Plan:

1. Finding: The proposed Shoreline Plan is consistent with, and will not adversely affect implementation of the Regional Plan, including all applicable Goals and Policies, Plan Area Statements and maps, the Code, and other TRPA plans and programs.

Rationale: Based on the analysis in the Shoreline Plan Final EIS; the 2015 Threshold Evaluation (TRPA 2016); Findings 2, 3, and 4, below; and Table C-1, the Governing Board finds the proposed amendments to the Code of Ordinances

and implementation programs associated with the Shoreline Plan are consistent with and will not adversely affect implementation of the Regional Plan, including all applicable goals and policies, local plans (i.e., plan area statements, community plans, and area plans) adopted for the purpose of implementing the Regional Plan and their maps, the TRPA Code, and other TRPA plans and programs (as amended).

As described in the Shoreline Plan Final EIS and Finding 4, below, the proposed Shoreline Plan complements and accelerates implementation of the Regional Plan and its objectives: achievement and maintenance of thresholds while providing opportunities for orderly growth consistent with the thresholds. As explained in the Final EIS, Finding 4, below, and Table C-1, the proposed Shoreline Plan, along with the mitigation measures included in the Final EIS, is consistent with and will not adversely affect all applicable compliance measures, indicators, additional factors and supplemental compliance measures and attainment of target dates as identified in the 2015 Threshold Evaluation and in Attachment D of the Staff Summary.

Based on the rationale provided herein and Findings 2, 3, and 4 below, the Governing Board finds that adopting the proposed Shoreline Plan will not adversely affect implementation of the entire Regional Plan, including all applicable goals and policies, local plans and maps, the TRPA Code, and other TRPA plans and programs (as amended).

2. Finding: The proposed Shoreline Plan will not cause the environmental threshold carrying capacities to be exceeded.

Rationale: Based on the analysis in the Shoreline Plan Final EIS, 2015 Threshold Evaluation (TRPA 2016), Findings 3 and 4, below, and Table C-1, the Governing Board finds the amendments to Code of Ordinances and implementation programs associated with the Shoreline Plan will not cause the environmental threshold carrying capacities to be exceeded.

As demonstrated in the Shoreline Plan EIS, there are no unmitigated adverse impacts to the thresholds. The Final EIS evaluated the proposed Shoreline Plan's potential impacts on environmental threshold carrying capacities. All applicable environmental threshold carrying capacities are incorporated into the criteria of significance for each applicable resource evaluation in Chapters 4 through 17 of the Draft EIS. As explained in the findings portion of Table C-1, included at the end of these findings, changes or alterations have been required or incorporated into the proposed Shoreline Plan that avoid or reduce any significant adverse environmental effects of the proposed amendments to a less-than-significant level with the exception of Impact 11-1: Greenhouse Gas Emissions. TRPA has not established environmental threshold carrying capacities for GHG emissions. Therefore, this significant and unavoidable impact of the Shoreline Plan will not cause any environmental threshold carrying capacities to be exceeded.

3. Finding: Wherever federal, state or local air and water quality standards applicable for the Region, the strictest standards shall be attained, maintained, or exceeded pursuant to Article V(d) of the Tahoe Regional Planning Compact.

Rationale: Based on the analysis in the Shoreline Plan Final EIS, the 2015 Threshold Evaluation (TRPA 2016), Finding 4, below, and Table C-1, the Governing Board finds the amendments to the Code of Ordinances and associated implementation programs of the Shoreline Plan will not cause the applicable federal, state, and local air and water quality standards applicable to the Region to be exceeded.

The Shoreline Plan does not affect or change the federal, state, or local air and water quality standards applicable to the Region. As disclosed in the Draft EIS (Chapters 6 and 10), these standards were used as criteria of significance where applicable and no unmitigable impacts were found.

Based on the Shoreline Plan EIS and 2015 Threshold Evaluation Report, no applicable federal, state or local air or water quality standard will be exceeded by adoption of the Shoreline Plan. The proposed Shoreline Plan does not affect or change federal, state, or local air or water quality standards applicable to the Region. Projects implemented under the Shoreline Plan will be required to meet the strictest applicable air or water quality standards and implement water quality improvements consistent with TRPA best management practices (BMP) requirements, the Lake Tahoe Total Maximum Daily Load (TMDL), and the county and city Pollutant Load Reduction Plan (PLRP) in California and Stormwater Load Reduction Plan (SLRP) in Nevada. Federal, state, and local air and water quality standards remain applicable to all parcels that fall within the Shoreline Plan, thus ensuring environmental standards will be achieved or maintained pursuant to the Tahoe Regional Planning Compact.

4. Finding: The Regional Plan and all of its elements, as amended, achieves and maintains the thresholds.

Rationale: **I. Introduction**

In 1980, Congress amended the Compact to accelerate the pace of environmental progress in the Tahoe Region by tasking TRPA with adopting a regional plan and implementing regulations that protect the unique national treasure that is Lake Tahoe. First, Article V (b) required that TRPA, in collaboration with Tahoe's other regulatory agencies, adopt "environmental threshold carrying capacities" (thresholds or standards) establishing goals for a wide array of environmental criteria. Second, Article V(c) directed TRPA to adopt a regional plan to "achieve and maintain" these thresholds, and to "continuously review and maintain" implementation of the plan.

The 1980 Compact instated an era of establishing and enforcing rigorous controls on new development. In 1982, TRPA adopted the necessary thresholds for the Tahoe Region. These thresholds are a mix of both long- and

short-term goals for the Tahoe Region. The Region was in attainment of a number of these thresholds shortly after the adoption of the Regional Plan and remains in attainment today. Other thresholds address more intractable problems; for example, TRPA established numeric water quality standards that, even under best-case conditions, could not be attained for decades. *See, e.g., League to Save Lake Tahoe v. Tahoe Reg'l Planning Agency*, 739 F. Supp. 2d 1260, 1265 (E.D. Cal. 2010).

The second phase in this process was establishing a regional plan that, when implemented through rules and regulations, would ultimately achieve and maintain these thresholds over time. In 1987, following years of negotiation and litigation, TRPA adopted its Regional Plan. The 1987 Regional Plan employed a three-pronged approach to achieve and maintain the adopted environmental standards. First, the plan established a ceiling on development in the Region. It restricted the placement, timing, and extent of new development outside of the shorezone, but did not address the total amount of development that could occur within the shorezone. Second, the plan sought to prevent new harm to the environment as well as repair the environmental damage caused by existing development, particularly for projects that predated TRPA's existence. To this end, the plan created incentives to redevelop urbanized sites under more protective regulations and to transfer development out of sensitive areas that would then be restored. Third, TRPA adopted a capital investment program that was largely but not exclusively publicly funded to achieve and maintain thresholds by improving infrastructure and repairing environmental damage. In 1997, TRPA replaced this program with the Environmental Improvement Program (EIP). In subsequent years, TRPA generated investments of well over \$1 billion in public and private money to restore ecosystems and improve infrastructure under the EIP. Recent litigation confirmed that the Regional Plan as established in 1987 and subsequently amended over time will achieve and maintain the adopted environmental thresholds. *Sierra Club v. Tahoe Reg'l Planning Agency*, 916 F.Supp.2d 1098 (E.D. Cal. 2013) [Homewood litigation].

2012 Regional Plan Update

Even though implementation of the 1987 Regional Plan would achieve and maintain the thresholds, in 2004 TRPA began public outreach and analysis of the latest science and monitoring results to identify priority areas in which the Regional Plan could be comprehensively strengthened to accelerate the rate of threshold attainment. TRPA's policymakers realized that the challenges facing the Region differed from those confronting the agency when it adopted its original Regional Plan in 1987. Uncontrolled new growth that had been the primary threat decades earlier had been brought into check by the strict growth limitations in the 1987 Regional Plan. Contemporary problems differed, resulting from the continuing deterioration and lack of upgrades to existing legacy development. In essence, to make the greatest environmental difference, the Tahoe Basin needed to fix what was already in place. In addition, TRPA realized some existing land-use controls could be improved to remove barriers to redevelopment that would address ongoing environmental

degradation caused by sub-standard development constructed before TRPA had an adopted Regional Plan or even came into existence. Land use regulations and public and private investment remain essential to attaining the thresholds for Lake Tahoe.

Furthermore, TRPA recognized that the social and economic fabric of the Tahoe Region could not support the level of environmental investment needed. The economic foundation of gaming had fallen away, and the level of environmental investment needed could not be supported solely by an enclave of second homes for the wealthy. Businesses and the tourism sector were faltering. Affordable housing and year-round jobs were scarce. Local schools were closing, and unemployment was unusually high. In light of these realities, TRPA sponsored an ongoing outreach program to obtain input on how to advance TRPA's environmental goals. Between 2004 and 2010, TRPA conducted over 100 public meetings, workshops, and additional outreach. More than 5,000 people provided input regarding their vision for TRPA's updated Regional Plan. Based on this input, TRPA identified a number of priorities to be addressed by the updated Regional Plan. On December 12, 2012, TRPA's nine-year effort culminated with the approval of the first comprehensive update to the Regional Plan since 1987.

The updated Regional Plan includes multiple strategies targeting environmental improvements to accelerate achieving and maintaining threshold standards in the Region. First, it maintains both regulatory and implementation programs that have proven effective in protecting Lake Tahoe's environment. TRPA's regional growth control regulatory system, strict environmental development standards, and inter-agency partnerships for capital investment and implementation (e.g., EIP) remain in place.

In addition, the Regional Plan promotes sensitive land restoration, redevelopment, and increases the availability of multi-modal transportation facilities. The implementation of the Regional Plan facilitates transferring existing development from outlying, environmentally-sensitive areas into existing developed community centers. The Regional Plan provides incentives so that private capital can be deployed to speed this transformation. As noted above, a variety of strategies in the Regional Plan work together to accelerate needed environmental gains in the categories where threshold benefits are most needed – water quality, restoration of sensitive lands, scenic quality advances, and efforts to continue maintenance and attainment of air quality standards. TRPA found that the updated Regional Plan would achieve and maintain the thresholds, and would accelerate the pace at which thresholds are achieved (see the Regional Plan Update Findings (TRPA 2012a)).

The Need for a Shoreline Plan

The 1987 Regional Plan included a Shorezone Subelement and implementing ordinances that regulated some aspects of development along the shoreline. The 1987 ordinances recognized that there was uncertainty regarding the effect of shoreline structures on fisheries. Because of this uncertainty, the

ordinances called for a study to evaluate the effects of shoreline structures on fish habitat and spawning and, in the interim, prohibited new structures in areas identified as prime fish habitat. The 1987 Regional Plan did not establish a limit on the total amount of shoreline development that could occur, and instead called for this issue to be considered after completion of the fish studies.

By the early 1990s, the studies called for in the 1987 ordinance had been completed, and they found that the placement of piers and buoys in spawning or feed/cover habitat has limited effect on fish populations and those effects can be mitigated (Byron et al. 1989; Beauchamp et al. 1991, 1994). These studies indicated that the 1987 Regional Plan's interim prohibition of structures in prime fish habitat was not supported by the best available science.

While the 2012 update to the Regional Plan strengthened and improved many of the regional strategies to achieve and maintain thresholds, it did not address the Shoreline, or regulate the amount, location, timing, or design of structures within the shorezone. The current Regional Plan effectively limits the total amount of development everywhere in the Region, except in the shorezone, where the interim provisions from the 1987 Regional Plan still apply. While the existing Regional Plan will achieve and maintain thresholds (see TRPA 2012a), the Shoreline Plan is necessary because the existing moratorium is no longer tenable and to 1) ensure the ongoing ability of the Regional Plan to achieve and maintain thresholds by managing the use and development of the shoreline consistent with the best available science, 2) comply with the Compact's mandate to allow for the orderly development where consistent with the thresholds, and 3) complete the regional growth control system by establishing growth caps and related standards for lake access structures in the shorezone.

The Shoreline Planning Process

Beginning in the 1990's, TRPA initiated multiple shorezone planning efforts to replace the interim provisions of the 1987 Regional Plan. Each effort sought to enact a comprehensive shoreline plan based on current science that establishes growth caps for the shoreline, achieves and maintains the threshold standards, and allows for the orderly development of lake access structures consistent with the thresholds. Due to the inherent controversy of regulating development on the shores of Lake Tahoe, and the disparate views of the many agencies, organizations, and individuals with an interest in the shoreline, none of the planning efforts in the past 30 years resulted in an implementable shoreline plan.

In 2016, TRPA launched a collaborative process to develop the proposed Shoreline Plan. TRPA, along with partner agencies and organizations, engaged a third-party mediator to convene stakeholders and develop a consensus-based planning process. As part of this process, extensive public input was collected, and a Steering Committee was convened to frame key shoreline

issues, identify the approach to address them, and develop policy recommendations. TRPA also convened a Joint Fact-Finding Committee comprised of technical experts from public agencies, universities, and stakeholder organizations to provide scientific and technical recommendations to inform the Shoreline Plan.

The Shoreline Plan

The proposed Shoreline Plan is the result of this consensus-based planning initiative. It includes a set of policy concepts to guide resource management and development within the shorezone and lakezone of Lake Tahoe. These concepts will be implemented through amendments to the TRPA Code and through implementation programs conducted by TRPA and partner organizations. These concepts, TRPA Code provisions, and implementation programs are collectively referred to as the Shoreline Plan. The Shoreline Plan will involve amendments to sections of the TRPA Code that address uses and development in the shorezone of Lake Tahoe (TRPA Code Chapters 80–86); related amendments to TRPA Code Chapters 1, 2, 10, 14, 50, 63, 66, and 90; and revisions to Article 10 of the Rules of Procedure to establish program implementation and mitigation fees.

The Shoreline Plan will enhance the recreational experience along Lake Tahoe's shores while protecting the environment and responsibly planning for the future. As an element of the Regional Plan, the Shoreline Plan, in combination with other elements of the Regional Plan and implementation programs, is intended to achieve and maintain the environmental thresholds while allowing for orderly access to the lake consistent with those thresholds. The Shoreline Plan will manage the use and development of the shoreline consistent with the best available science. It completes the regional growth control system by establishing limits on the number, location, type, design, and timing of lake access structures in the shorezone. The next section of this finding establishes how the Regional Plan and all of its implementing programs, as amended by the Shoreline Plan, fulfills its role in achieving and maintaining the thresholds.

II. The Regional Plan, as amended by the Shoreline Plan, will achieve and Maintain the Environmental Threshold Carrying Capacities

The information contained herein supports the required findings set forth in Chapter 4, Section 4.4.1 of the Code of Ordinances. The discussion demonstrates that the Regional Plan, Code of Ordinances, and all other components of the Regional Plan, as amended by the Shoreline Plan, will achieve and maintain the environmental threshold carrying capacities. The effects of the Regional Plan, as amended by the Shoreline Plan, on the environmental threshold carrying capacities are addressed for the following: air quality, water quality, soil conservation, vegetation, fisheries, wildlife, scenic resources, noise, and recreation. The discussion below summarizes the following for each of the nine threshold resources:

- A list of the indicator reporting categories;
- A discussion of the current attainment status and the effects of the proposed Shoreline Plan for each indicator reporting category;
- A discussion of the threshold effects of the proposed Shoreline Plan;
- A discussion of other regional planning strategies that contribute to threshold gain; and
- A conclusion statement regarding whether the Regional Plan, as amended by the Shoreline Plan, would achieve and maintain the thresholds.

A. Air Quality

This section summarizes the effects of implementing the Regional Plan, as amended by the Shoreline Plan, on the thresholds established for air quality. The following Indicator Reporting Categories for air quality have been established by TRPA:

- ▲ Carbon Monoxide (CO),
- ▲ Ozone,
- ▲ Visibility,
- ▲ Respirable and Fine Particulate Matter (PM),
- ▲ Nitrate Deposition, and
- ▲ Odor.

According to 2015 Threshold Evaluation, the majority of air quality indicators in the Lake Tahoe Basin were at or better than attainment with adopted thresholds and standards. In total, 16 of 20 indicators were in attainment with almost all having improving trends. Two indicators had insufficient data to make a determination (TRPA 2016).

Effects of the Shoreline Plan on Air Quality Thresholds

CO, Ozone, and PM Thresholds

The Highest 8-hour Average Concentration of Ozone and Highest 24-hour PM₁₀ Concentration Thresholds are not in attainment. The remaining ozone and PM thresholds, as well as the CO and visibility thresholds, are in attainment. As explained in Impact 10-1 in the EIS, the increase in long-term operational emissions associated with the Shoreline Plan would primarily be a function of the increase in recreational boating activity that would occur, and, to a lesser degree, any new roadway vehicle trips associated with that activity. The projected increase in boating would generate additional CO, nitrogen oxides (NO_x), reactive organic gases (ROG), PM₁₀, and PM_{2.5} emissions, which could affect the associated threshold standards. However, any increase in boating activity and associated roadway vehicle travel resulting from the Shoreline Plan will be more than offset by fleet turnover (i.e., the retirement of older and higher-emitting vehicles) and the increasingly stringent California and federal emissions standards for recreational watercraft. Because of the long-term reduction in emissions of ozone precursors, CO, PM₁₀ and PM_{2.5} that will result from stricter standards and cleaner engines over time, implementation of the

Shoreline Plan will not result in the deterioration of ambient air quality or the exceedance of an applicable air quality standard.

As analyzed in Impact 10-2, construction activities will be required to comply with TRPA's Standard Conditions of Approval for Shorezone Projects (TRPA Permit Appendix S). These conditions include dust control measures, including covering mounds of loose soil, revegetating disturbed areas, and avoiding track out. The types of construction activities that will be associated with the development of a new boat ramp or pier, or dredging activities generate equipment exhaust and fugitive dust emissions. Implementation of Mitigation Measure 10-2, will require TRPA to revise the Standard Conditions of Approval for Shorezone Projects (TRPA Permit Attachment S) to require that minimum construction emission reduction best practices be implemented for all projects within the shorezone. Implementation of Mitigation Measure 10-2 will further reduce fugitive PM₁₀ and PM_{2.5} dust emissions for each project and minimize dispersion beyond a given property boundary. Implementation of Mitigation Measure 10-2, as prescribed, will also reduce diesel equipment exhaust emissions of NO_x and PM₁₀ by restricting idling times for diesel equipment. These best practices will be effective in substantially reducing construction-generated emissions. Additionally, projects located in the jurisdictions regulated by the Placer County Air Pollution Control District (PCAPCD) or El Dorado County Air Quality Management District (EDCAQMD) must demonstrate, as a condition of approval, that emissions will be mitigated to levels below the respective district-applicable threshold standards for construction emissions.

Because long-term operational emissions associated with the Shoreline Plan will decrease, the Shoreline Plan will support continued achievement and maintenance of air quality thresholds. Because the Shoreline Plan will include additional and revised construction best practices for air quality emissions (as required by Mitigation Measure 10-20), short-term emissions of CO, Ozone, and PM associated with shoreline construction will decrease.

Nitrate Deposition Threshold

The threshold standard related to nitrate deposition is a management standard that calls for TRPA to reduce the transport of nitrates into the Basin and reduce NO_x produced in the Basin. This threshold is in attainment.

In general, gaseous emissions of nitrogen compounds that could undergo atmospheric deposition are associated with combustion processes from automobiles and other sources. The thresholds limit vehicle miles of travel (VMT) as a proxy for nitrate deposition. The target value for the VMT threshold is a 10 percent reduction from 1981 levels, or no more than 2,030,938 daily VMT (TRPA 2016). The 2017 Regional Transportation Plan/ Sustainable Communities Strategy (RTP/SCS) determines that the monitoring of VMT, and release of commodity allocations contingent on achievement of the TRPA VMT threshold standard (as required by Chapter 50 of the TRPA Code) will prevent region-wide VMT from exceeding the threshold standard of 2,030,938.

Because the Shoreline Plan is consistent with the RTP and the VMT threshold

standard is maintained through monitoring and controlled release of commodity allocations, the Shoreline Plan will be consistent maintenance of the nitrate deposition threshold.

Odor Threshold

TRPA has adopted a policy statement to reduce fumes from diesel engines in the Lake Tahoe Basin to the extent possible (TRPA 2012). This threshold is in attainment. A review of current adopted policies, ordinances, and rules of TRPA, state, and federal agencies has found that this policy statement has been implemented. These agencies have adopted policies and measures that address diesel odor, and there is evidence that the associated regulatory measures are effective in reducing diesel fuel emissions at regional, state, and national scales. As discussed in the EIS in Impact 10-4, operations under the Shoreline Plan will not result in any new permanent odor sources, and odors associated with project construction (e.g., diesel exhaust from the use of heavy-duty off-road equipment) will be temporary and will generally not be produced in the same locations for an extended period. Furthermore, such odorous emissions generally disperse rapidly with distance from the source. The Shoreline Plan will not result in the introduction of new odor sources or new odor exposure problems in the Lake Tahoe Basin. Therefore, the Shoreline Plan will be consistent with policy statements associated with the Odor Threshold Standard.

Air Quality Threshold Gain from the Shoreline Plan

The Shoreline Plan includes a commitment to develop and implement a Greenhouse Gas (GHG) reduction policy (as required in Mitigation Measure 11-1). This GHG reduction policy will result in secondary benefits related to the reduction of CO, ozone, PM, and nitrate emissions that will contribute to the maintenance and accelerate attainment of for air quality thresholds. As part of the Shoreline Plan, TRPA will develop and coordinate implementation of a GHG Emission Reduction Policy that will be implemented through TRPA-approved plans, project permitting, or projects/programs. The policy will require implementation of measures for the reduction of GHG emissions generated by demolition and construction activity in the shorezone and in associated upland areas, by on-road motor vehicles trips directly associated with the operation of boating facilities, and by ongoing operation of recreational watercraft. Measures that could be implemented as part of this policy could include those that will minimize construction-related GHG emissions, GHG emissions associated with on-road vehicle to watercraft facilities, and GHG emissions generated by recreational watercraft. Mitigation Measure 11-1 includes additional specific GHG reduction measures that could be implemented as part of this policy. Measures that reduce GHG emissions, will also reduce emissions of NO_x, PM, and Ozone, and will contribute to the maintenance and accelerated attainment of these thresholds.

Other Regional Planning Strategies that Contribute to Air Quality Threshold Gain

The Lake Tahoe Regional Plan and Regional Transportation Plan include a suite

of strategies to help the Region achieve and maintain air quality threshold standards (TRPA Goals and Policies: Air Quality Subelement at pages 2-33 to 2-35; Regional Transportation Plan Chapter 3, *Sustainable Communities Strategy*, Chapter 5, *Transportation Management Programs*, and Chapter 6, *Funding and Implementation Strategy*). While there are many programs and policies that contribute to air quality threshold attainment, the major regional strategies include:

- ▲ Supporting environmental redevelopment. Land Use policies outlined in the Regional Plan support clustering population and employment in compact Town Centers that are well served by transit, pedestrian, and bicycle infrastructure. The Regional Plan achieves this by incentivizing redevelopment and transfers of development from outlying and sensitive areas into existing Town Center areas. (TRPA Goals and Policies: Chapter 2, Land Use Element.)
- ▲ Creating walkable communities and increased alternative transportation options. The Regional Plan and the Regional Transportation Plan: Mobility 2035, outlines the policies, programs and projects that provide a transportation system that supports this compact form of development and that will help to create an environment where walking, biking, and transit are convenient modes of transportation. (Mobility 2035: Funding and Implementation Strategy Chapter, page 6-1; Goals and Policies, page 2-1.) The combination of compact land-uses and convenient, diverse transportation options will allow more travel to be conducted on foot, by bicycle, or by transit, resulting in fewer and shorter vehicle trips per person and reducing negative impacts to air quality associated with motor vehicle travel. The benefits of these two strategies are further articulated in the Sustainable Communities Strategy chapter of Mobility 2035 (page 3-1). Additionally, the Regional Plan Update (RPU) EIS and Regional Transportation Plan EIS demonstrated that the combination of improvements will allow the Region to achieve and maintain air quality thresholds (see Regional Plan Update Draft EIS, Chapter 3.3: Transportation, and Chapter 3.4: Air Quality; Regional Transportation Plan Draft EIS, Chapters 3.3: Transportation and Chapter 3.4: Air Quality).
- ▲ The Lake Tahoe Environmental Improvement Program (EIP) is implemented by a number of partners, including federal, state, and local agencies, private interests, and the Washoe Tribe, and includes projects that implement the Regional Plan and help achieve and maintain thresholds. The Air Quality and Transportation Focus Area of the EIP includes projects that benefit air quality thresholds, such as construction of new bicycle trails and improvements to public transportation systems.
- ▲ TRPA implements an air quality mitigation program in which air quality mitigation fees are collected for certain types of projects and then used to fund EIP projects that help reduce traffic and improve air quality.

- ▲ TRPA has partnered with local agencies to implement a replacement program for older wood stoves and fireplace inserts (TRPA 2018a). The smoke emitted from incomplete wood combustion contains fine particulate matter, GHGs, CO, nitrogen, and toxic air pollutants. Replacing older, inefficient wood-burning appliances with more efficient wood-burning or other heating appliances substantially reduces emissions and contributes to attainment for CO, ozone, PM, and nitrate deposition thresholds.
- ▲ Policies, ordinances, and programs that address maintenance of the Odor Threshold Standard have been implemented in the Basin. These include vehicle idling restrictions, exemptions, and compliance programs adopted in the TRPA Code, Chapter 65. Additionally, TRPA works with local public transportation providers to fund and support the purchase of alternative fuel buses in support of this ordinance (TRPA 2016).

Conclusion

For the reasons described above, and based on the Shoreline Plan EIS, Regional Plan Update Final EIS, the Regional Transportation Plan, the 2017 Regional transportation Plan Threshold Evaluation Summary, the 2015 Threshold Evaluation Report, and Regional Plan Update Threshold Findings (TRPA 2012a), the Regional Plan, as amended by the Shoreline Plan, will continue to achieve and maintain the air quality thresholds.

B. Water Quality

This section summarizes the effects of implementing the Regional Plan, as amended by the Shoreline Plan, on the thresholds established for water quality. The following Indicator Reporting Categories for water quality have been established by TRPA:

- ▲ Pelagic Lake Tahoe,
- ▲ Littoral Lake Tahoe,
- ▲ Tributaries,
- ▲ Surface Runoff (discharge to a water body),
- ▲ Groundwater (discharge to), and
- ▲ Other Lakes.

Threshold standards that could be affected by the Shoreline Plan are discussed below. Strategies included in the Shoreline Plan that will contribute to threshold gain are also identified.

Effects of the Shoreline Plan on Water Quality Thresholds

Pelagic Lake Tahoe Thresholds

The secchi depth threshold standard related to transparency is not in attainment. Attainment of this threshold is expected to take many years and is the focus of many Regional Plan programs, including the Lake Tahoe Total Maximum Daily Load (TMDL). The vertical extinction coefficient threshold related to clarity is in attainment.

As discussed in Impacts 6-1 and 6-2 of the Shoreline Plan Draft EIS, construction and dredging activities associated with any proposed or existing facility under the Shoreline Plan will be required to conform to applicable state, federal, and TRPA regulations for the protection of water quality (e.g., TRPA Standard Conditions for Approval for Shorezone Projects), the future projects under the Shoreline Plan will not adversely affect the attainment of these thresholds. As described in Chapter 6 of the Shoreline Plan Draft EIS, the increased motorized boating with implementation of the Shoreline Plan will not adversely affect these thresholds.

Phytoplankton Primary Productivity

The phytoplankton primary productivity threshold is not in attainment. As discussed in Impact 6-3, NO_x and PM are byproducts of exhaust generated from boat engines (see Chapter 10, "Air Quality," of the Draft EIS). Increases in nitrogen stimulate algal growth (i.e., increase primary productivity). Impact 10-1 concludes that peak-day boating emissions of NO_x and PM will decrease under the Shoreline Plan as the increased boating hours are offset by fleet turnover, by which older boat engines are retired over time and replaced by cleaner and more fuel-efficient models that meet current emission standards. In spite of an increase in boating that will occur under the Shoreline Plan, emission rates for recreational watercraft on Lake Tahoe will decrease substantially over the planning horizon of the Shoreline Plan, thereby contributing to attainment of the phytoplankton primary productivity threshold.

Nearshore Turbidity

The nearshore turbidity (no stream influence) and nearshore turbidity (stream influence) thresholds are in attainment.

The effects of the Shoreline Plan on nearshore turbidity thresholds will be similar to those discussed above for the pelagic Lake Tahoe clarity and transparency thresholds. Because construction and dredging activities associated with any proposed or existing facility under the Shoreline Plan will be required to conform to applicable state, federal, and TRPA regulations (e.g., TRPA Standard Conditions for Approval for Shorezone Projects) for the protection of water quality, the future projects under the Shoreline Plan will be consistent with the continued maintenance of these thresholds.

With implementation of the Shoreline Plan, TRPA will increase boater education and enforcement of the current no-wake zone, expand existing nearshore monitoring to assess causes of nearshore water clarity conditions and their potential relationship to boating, and implement management actions informed by research to avoid the hydrodynamic effects from motorized boating (i.e., boat wake or propeller wash), all of which will support the continued maintenance of these thresholds.

Attached Algae

In 2012, the TRPA Governing Board adopted a new standard for the nearshore environment to address attached algae (periphyton) growing to submerged surfaces in the lake. The 2015 Threshold Evaluation indicated that the status

and trend for attached algae could not be assessed due to insufficient data given the lack of defined numerical targets.

The effects of the Shoreline Plan on attached algae thresholds will be similar to those discussed above for the pelagic Lake Tahoe phytoplankton primary productivity threshold. Increases in nitrogen stimulate algal growth. Impact 10-1 in the Shoreline Plan Draft EIS concludes that peak-day boating emissions of NO_x and PM will decrease under the Shoreline Plan as the increased boating hours are offset by fleet turnover and older boat engines are retired over time and replaced by cleaner and more fuel-efficient models that meet current emission standards. In spite of an increase in boating that will occur under the Shoreline Plan, emission rates for recreational watercraft on Lake Tahoe will decrease substantially over the planning horizon of the Shoreline Plan, thereby contributing to improvement in the nearshore waters of Lake Tahoe and a reduction in attached algae.

Aquatic Invasive Species

The 2015 Threshold Evaluation Report determined that insufficient data exists to assess the trend with respect to the majority of the aquatic invasive species (AIS) standards. However, no new aquatic invasive species have been documented in Lake Tahoe since the standard was adopted.

As discussed in Impact 5-1 in the Draft EIS, the rigorous and effective AIS prevention programs (including boat inspection, decontamination, outreach, and education) will continue under the Shoreline Plan. The inspection program will continue to function under the existing funding system, which will be adequate to accommodate the expected increase in inspections associated with the increase in boating activity.

The Shoreline Plan will provide a new funding source to increase the amount of AIS control treatments completed each year. It will also require that each marina implement measures to reduce the risk of new infestations and control or eradicate existing infestations. These provisions will reduce the amount of AIS in the lake.

The Shoreline Plan will also encourage the eventual widespread adoption of ballast tank filters, heated ballast water intakes in engines, better draining ballast tanks, and/or other technologies that reduce the potential for recreational boats to spread Asian clams or other AIS. These measures will substantially reduce the potential for the spread of AIS lake-wide from marinas.

Surface Runoff Thresholds

The 2015 Threshold Evaluation Report indicated that the status and trend for thresholds related to suspended sediment concentration, nutrient concentrations, suspended sediment load, and nutrient loads could not be assessed.

The effects that the Shoreline Plan could have on surface runoff quality thresholds will generally be associated with construction activities. The potential for increased erosion resulting from future projects implemented

under the Shoreline Plan will be reduced through compliance with county, TRPA, and Lahontan Regional Water Quality Control Board (RWQCB) or Nevada Division of Environmental Protection (NDEP) code requirements, permit conditions, and regulations. For example, temporary BMPs that comply with the TRPA *Best Management Practices Handbook* must be implemented on construction sites and maintained throughout the construction period until winterization, and permanent BMPs must be installed once construction has been finalized. For these reasons, the Shoreline Plan will support attainment of surface runoff quality thresholds.

Groundwater Thresholds

The 2015 Threshold Evaluation Report indicated that the status and trends for groundwater thresholds (suspended sediment load, fine sediment load, and nutrient loads) could not be assessed.

As discussed in Impact 7-2 of the Draft EIS, construction of some shorezone structures could require excavation beyond 5 feet in depth (e.g., placement of landward pier footings). Excavation beyond 5 feet in depth will be evaluated on a project-by-project basis. TRPA Code Section 33.3.6 allows excavation deeper than 5 feet in limited circumstances, provided that a soils/hydrologic report has been completed that demonstrates that the excavation will not interfere with or intercept groundwater, no damage occurs to mature trees or stream environment zone (SEZ) vegetation, excavated material is disposed of properly (as defined in TRPA Code Section 33.3.4), and the project site's natural topography is maintained. Future projects implemented under the Shoreline Plan will be required to with county, TRPA, and Lahontan RWQCB or NDEP code requirements, permit conditions, and regulations that protect groundwater. Thus, the Shoreline Plan will support attainment of groundwater thresholds.

Tributaries and Other Lakes Thresholds

The threshold for suspended sediment concentration for tributaries is in attainment. The thresholds for phosphorus and nitrogen concentrations vary between in attainment and nonattainment depending on the data collection location. The 2015 Threshold Evaluation indicated that the status and trends for suspended sediment load, fine sediment load, and nutrient loads could not be assessed. Implementation of the Shoreline Plan will not result in new structures or activities in tributaries or other lakes in the Tahoe Basin that would affect attainment thresholds related to tributaries and other lakes.

Water Quality Threshold Gain from the Shoreline Plan

The Shoreline Plan will contribute to threshold gain related to water quality thresholds by:

- ▲ Requiring upland BMPs prior to the reconstruction of a pier;
- ▲ Requiring water quality improvements at marinas as a condition of a marina expansion;

- ▲ Restricting new motorized watercraft rental concessions to within marinas;
- ▲ Regulating fueling practices at marinas;
- ▲ Implementing stringent requirements for new dredging;
- ▲ Increasing enforcement of the no-wake zone;
- ▲ Expanding the no-wake zone to include all of Emerald Bay, 200 feet around shoreline structures, and 100 feet around nonmotorized watercraft and swimmers;
- ▲ Expanding monitoring to guide adaptive management of nearshore water quality;
- ▲ Increasing boater education related to appropriate watercraft operations and maintenance; boater safety; AIS; no-wake zone; and bilge, ballast, and fuel practices at all public motorized boat access points;
- ▲ Training staff at marinas and motorized watercraft rental concessions on appropriate watercraft operations and maintenance;
- ▲ Requiring staff at marinas and motorized watercraft rental concessions to educate customers about the no-wake zone and appropriate watercraft operations;
- ▲ Expanding monitoring to guide adaptive management of nearshore water quality;
- ▲ Requiring marinas to demonstrate a reduction in AIS habitat conditions and/or reduced need for dredging for marina expansions;
- ▲ Providing ongoing funding to increase AIS control;
- ▲ Requiring implementation of AIS management plans for all marinas;
- ▲ Supporting the widespread adoption of boating technologies that will reduce the risk of AIS spread;
- ▲ Prohibiting placement of new piers within Stream-mouth Protection Zones around the inlet of the 24 major streams and rivers that drain into Lake Tahoe;
- ▲ Providing incentives for the transfer of piers out of Stream Mouth Protection Zones and scenic travel units that are not in attainment of thresholds; and

- ▲ Implementing a GHG reduction policy to reduce GHG emissions (which will also reduce other types of air pollution that could affect water quality).

The provisions of the Shoreline Plan listed above will benefit water quality thresholds. These will support the continued attainment of those thresholds that are in attainment and will accelerate the attainment of those water quality thresholds that are not already in attainment.

Other Regional Planning Strategies that Contribute to Water Quality Threshold Gain

The goals and policies in the Regional Plan that provide direction for attainment of the Water Quality Thresholds are contained in the Water Quality Subelement of the Land Use Element. Goals include the reduction of sediment and nutrients to Lake Tahoe and the elimination or reduction of other pollutants (See pages 2-37 through 2-44 in Chapter 2, Land Use Element, of the TRPA Regional Plan Goals and Policies). Regional Plan strategies for water quality protection and shorezone conservation include the Lake Tahoe TMDL program; water quality protection regulations in the Code of Ordinances; regulations of state, federal, and local agencies; and implementation programs including the Watersheds, Habitat, and Water Quality programs of the EIP. While there are many programs and policies that contribute to air quality threshold attainment, the major regional strategies include:

- ▲ The Lake Tahoe TMDL guides the actions of agencies in the Region to reduce inputs of nutrients and sediments into Lake Tahoe (Lahontan and NDEP 2014). As part of the TMDL implementation, each jurisdiction in the Region prepares a load reduction plan (pollutant load reduction plans in California and stormwater load reduction plans in Nevada) that detail the steps to achieve the specified load reductions. Achievement of these load reductions is expected to result in the eventual attainment of the secchi depth threshold standard and other water quality thresholds.
- ▲ The Code of Ordinances requires implementation of BMPs for all new development projects, and includes BMP retrofit regulations for developed properties. For example, Section 60.4.6.A.1 of the TRPA Code requires properties be able to infiltrate the 20-year, one-hour storm into groundwater. The BMP Retrofit Program represents the private contribution to the environmental improvement program. TRPA's Stormwater Management Program staff provide free assistance to property owners, private businesses, and government agencies to advance effective BMP design and implementation on developed properties.
- ▲ The Regional Plan includes a growth control system and transfer of development program to limit growth and shift development from sensitive to less-sensitive lands. This results in the restoration of sensitive

land, reducing fine sediment and nutrient runoff, and increasing the natural infiltration of runoff.

- ▲ The Regional Transportation Plan complements these Regional Plan features by encouraging use of public transit and alternative transportation modes, and reducing reliance on the private automobile, thereby reducing atmospheric deposition of pollutants.
- ▲ Water quality mitigation fees, collected on projects that create new land coverage, support erosion and stormwater pollution control projects.
- ▲ The EIP includes numerous projects that help achieve attainment of the water quality thresholds, including the following types of projects:
 - restoration or enhancement of stream channels;
 - retrofit or decommissioning roads;
 - restoration or enhancement of disturbed forested uplands;
 - inspection and maintenance of unpaved non-urban roads;
 - issuing BMP certificates to commercial, multi-family and single-family residential properties;
 - implementing public outreach and educational campaigns (such as the “Take Care” campaign) that highlight for residents and visitors what they can do to maintain a healthy environment;
 - TRPA’s grant funded Stormwater Management Program (SMP) that focuses on compliance and maintenance verification activities on priority commercial and large multi-family residential properties in coordination with local jurisdictions; and
 - street sweeping, which reduces fine sediment and nutrient loading from roadway stormwater runoff.
- ▲ The Lake-Friendly Business Program highlights and encourages patrons to visit businesses that are doing their part to help protect Lake Tahoe by installing and maintaining their water quality BMPs.
- ▲ The Nearshore Agency Working Group (including representatives of TRPA, the U.S. Environmental Protection Agency, Lahontan RWQCB, and NDEP) is preparing a nearshore work plan, called the Nearshore Resource Allocation Plan, to guide nearshore monitoring and coordination needed to understand and manage nearshore conditions. The Nearshore Agency Working Group is considering the range of issues that affect nearshore water quality, such as stormwater runoff, land coverage, and fertilizer use.

- ▲ Additionally, TRPA is leading a collaborative effort to prevent new AIS as well as control existing invasive species, such as Asian clam and certain aquatic weeds. Management of AIS at the Lake is guided by the Lake Tahoe Region Aquatic Invasive Species Management Plan. Within the plan, management of AIS is broadly classed into prevention, monitoring and rapid response, and control (TRPA 2014).
- ▲ Every motorized boat is required to be inspected for aquatic invasive species prior to launching in Lake Tahoe. Tahoe Resource Conservation District (TRCD) implements the boat inspection program at four roadside stations during the summer boating season.
- ▲ “Eyes on the Lake” is a citizen science program, led by the League to Save Lake Tahoe (League), designed to report the incidence of AIS in Tahoe’s waters. League staff train community members how to identify and report the location and presence of aquatic plants in the lake.
- ▲ The “Tahoe Keepers” self-inspection and decontamination training program provides paddlers and hand-launched watercraft users with the information and training to help prevent the introduction and spread of AIS from non-motorized watercraft.
- ▲ The Tahoe Keys Property Owners Association is developing an integrated weed management plan to address AIS in the Tahoe Keys.
- ▲ All of the strategies that benefit Air Quality thresholds (described in section A, above), also benefit water quality thresholds by reducing the amount of atmospheric deposition into waterbodies.

Conclusion

For the reasons described above, and based on the Shoreline Plan EIS, Regional Plan Update Final EIS, the Lake Tahoe TMDL, the 2015 Threshold Evaluation Report, and Regional Plan Update Threshold Findings (TRPA 2012a), the Regional Plan, as amended by the Shoreline Plan, will continue to achieve and maintain the water quality thresholds.

C. Soil Conservation

This section summarizes the effects of implementing the Regional Plan, as amended by the Shoreline Plan, on the thresholds established for soil conservation. The following Indicator Reporting Categories for soil conservation have been established by TRPA:

- ▲ Impervious Cover, and
- ▲ Stream Environment Zone.

Effects of the Shoreline Plan on Soil Conservation Thresholds

Impervious Cover Thresholds

The 2015 Threshold Evaluation Report indicated that the land capability

district (LCD) standards are all in attainment (at or better than target), with the exception of LCDs 1b and 2.

As discussed in Impact 7-1 in the Draft EIS, the proposed Shoreline Plan will allow for a total of up to 10 new public piers, 128 private piers, and two new public boat ramps that will require new access paths (or connection points to upland areas) in the backshore. These structures will create coverage in the backshore (LCD 1b). The extent of new coverage resulting from implementation of the Shoreline Plan is estimated to be 0.3 acres. All projects implemented under the Shoreline Plan will be required to demonstrate their compliance with existing TRPA land coverage regulations (see TRPA Code Sections 81.3.2, 83.7.2.E, and 85.5.4), including restoration of 1.5 times the amount of LCD 1b coverage created by the project. Through compliance with TRPA regulations, implementation of the Shoreline Plan will result in the restoration of an estimated 0.45 acres of coverage for a net reduction of 0.15 acres of coverage within LCD 1b. For this reason, future projects implemented under the Shoreline Plan will contribute to attainment of the impervious cover thresholds.

Stream Environment Zones Threshold

The 2015 Threshold Evaluation Report indicated that the SEZ threshold is not in attainment.

As discussed in Impact 7-1 of the Draft EIS, Shorezone Tolerance District 1 is treated as SEZ (TRPA Code Section 83.7.2.E). In compliance with TRPA Code, projects implemented under the Shoreline Plan will only be permitted to increase coverage in Shorezone Tolerance District 1 if the coverage is associated with a footpath that provides access to the shoreline and the footpath is designed to minimize environmental effects. Such projects will be required to demonstrate compliance with existing TRPA land coverage regulations, including SEZ restoration of at least 1.5 times the area of Shorezone Tolerance District 1 disturbance created by the project. This will result in a net increase in the amount of restored and functioning SEZ. For this reason, future projects implemented under the Shoreline Plan will contribute to attainment of the SEZ threshold.

Soil Conservation Threshold Gain from the Shoreline Plan

The Shoreline Plan will encourage the removal of coverage from stream mouths and SEZ areas by encouraging the transfer of existing piers out of Stream Mouth Protection Zones through incentives, including allowing relocated single-use piers to qualify for multiple-use design standards (i.e., those standards that will apply to a pier serving two parcels) or providing upland scenic credits for relocated piers. When a pier is transferred or relocated, the old pier will be removed, and the area restored to a natural condition. In the case of pier transfers, the sending parcel will become deed-restricted to prevent future pier development. This will directly contribute to attainment of soil conservation thresholds.

In addition, as described above, the construction of shorezone structures will

comply with land coverage and SEZ regulations that result in a net reduction in land coverage in LCD 1b, and a net increase in the amount of restored and functional SEZ. This will contribute to attainment of the soil conservation thresholds.

Other Regional Planning Strategies that Contribute to Soil Conservation Threshold Gain

The Goals and Policies in the Regional Plan that provide direction for attainment of the soil conservation thresholds are contained in the Soils, Shorezone, and SEZ Subelements of the Land Use Element. See pages 2-7 through 2-8 in Chapter 2, Land Use Element; pages 4-15 through 4-20 and 4-26 through 4-29 in Chapter 4, Conservation; and pages 7-8 through 7-9 in Chapter 7, Implementation Element, of the Lake Tahoe Regional Plan Goals and Policies. These goals and policies generally direct the location of impervious cover and limit its extent and prevent soil erosion from the Region's watersheds by focusing development on more suitable soil types. The SEZ goals and policies call for the long-term preservation, enhancement, and restoration of SEZ lands as a means of achieving various environmental thresholds. The policy statements direct the restoration, preservation, and management of SEZ lands by setting numeric goals for restoration of degraded/developed SEZ lands and requiring their protection and management for natural functions and values. While there are many programs and policies that contribute to soil conservation threshold attainment, the major regional strategies include:

- ▲ TRPA requires parcel-level verification of a site's land capability class and coverage (see Code Chapter 30). New land coverage is only permitted if it is in compliance with the threshold standards as applied to a project site. Existing coverage is removed or mitigated through the excess coverage mitigation program. This is the primary mechanism through which development in the Basin adheres to the Bailey land capability system upon which the land cover threshold is based.
- ▲ The California and Nevada land banks remove land coverage and restore SEZs through the Excess Coverage Mitigation Program. These land banks purchase and restore sensitive lands and permanently retire land coverage.
- ▲ The Transfer of Development Rights Program (see Code Chapters 50 through 52) is a central part of TRPA's growth management system and an important strategy used to attain multiple environmental thresholds, by providing an incentive to transfer coverage to less sensitive lands. This program preserves undeveloped sensitive land and provides incentives for the restoration of developed private lands containing SEZ.
- ▲ TRPA is regularly updating the Code of Ordinances to provide new mechanisms to remove excess coverage on sensitive lands. For example, TRPA recently amended the Code to allow coverage transfers across

Hydrologically Related Area (HRA) boundaries if it is removed from sensitive lands and sent to lands that are non-sensitive. In addition, TRPA recently revised the excess coverage mitigation program to require that the land banks give preference to the retirement of coverage in sensitive lands.

- ▲ The EIP Watershed Management Program is a multi-sector program that results in the restoration of SEZ. This program preserves SEZs through strategic public acquisition sensitive lands. Disturbed SEZs occur in both urban and non-urban environments and actions to restore these are ongoing. The program has a primary focus on protecting and restoring meadows, wetlands, rivers, and streams. Since 1997, more than 3,099 acres of SEZ/sensitive lands have been acquired by state and federal agencies in the Region (TRPA 2016). In the past six years, nearly 380 acres of SEZ have been restored or enhanced through this program (TRPA 2018).
- ▲ The reservation of naturally functioning SEZ and accomplished through TRPA, Lahontan RWQCB, and U.S. Army Corps of Engineers (USACE) regulations that limit development and other disturbances in these areas.

Conclusion

For the reasons described above, and based on the Shoreline Plan EIS, Regional Plan Update Final EIS, the 2015 Threshold Evaluation Report, and Regional Plan Update Threshold Findings (TRPA 2012a), the Regional Plan, as amended by the Shoreline Plan, will continue to achieve and maintain the soil conservation thresholds.

D. Vegetation

This section summarizes the effects of implementing the Regional Plan, as amended by the Shoreline Plan, on the thresholds established for vegetation. The following indicator reporting categories for vegetation have been established by TRPA:

- ▲ Common Vegetation,
- ▲ Uncommon Plant Communities,
- ▲ Sensitive Plants, and
- ▲ Late Seral and Old Growth.

Effects of the Shoreline Plan on Vegetation Thresholds

Common Vegetation Thresholds

As reported in the 2015 Threshold Evaluation Report, many of the common vegetation thresholds are in attainment with the exception of relative abundance of meadow and wetland vegetation, deciduous riparian vegetation, yellow pine forest in seral stages other than mature, and red fir forest in seral stages other than mature.

Common natural terrestrial habitats within the shorezone consist primarily of beach (with variable composition of sand, gravel, and cobble, depending on

location) and a mix of conifer forest (Jeffrey pine, lodgepole pine, Sierran mixed conifer), scattered conifer trees, and snags. Additionally, urban/developed and ruderal (disturbed) areas are distributed throughout the shorezone where existing facilities (e.g., boat ramps, marinas, buildings, trails) and lake access are present.

As discussed in Impact 14-3 of the Draft EIS, the footprints of new piers and boat ramps will likely cover mostly unvegetated areas (beach/sand), disturbance or permanent loss of vegetation will be minor and incidental; and any temporarily disturbed areas will be restored following construction. TRPA's *Best Management Practices Handbook* and standard conditions of approval require minimizing the disturbance footprint and amount of native vegetation removed by a project, temporarily fencing retained vegetation, and revegetating any temporarily disturbed areas.

The terrestrial vegetation communities and habitats that may be affected are common and widely distributed in the Tahoe Basin and elsewhere in the Sierra Nevada, and the amount of habitat disturbance and loss will be very small relative to the total amount available in the area. Additionally, any tree removal that may be required will not substantially affect overall canopy cover or reduce the abundance of this vegetation type on the landscape.

Potential disturbance or removal of terrestrial vegetation from future projects permitted under the Shoreline Plan will not substantially reduce the quantity or quality of vegetation communities and habitats in the Region and will not result in a change in diversity or distribution of species in the region. Additionally, Shoreline Plan implementation will not result in a substantial change in local population numbers of any common plant or tree species.

Consequently, implementing the Shoreline Plan will not reduce the distribution, abundance, richness, or quality of common vegetation types over the Region in a manner that will affect the attainment status of the common vegetation threshold standard.

Uncommon Plant Communities Threshold

The 2015 Threshold Evaluation Report indicated that some of the individual locations of uncommon plant communities are in nonattainment (e.g., deepwater plants of Lake Tahoe, Freel Peak cushion plant community, and the Upper Truckee Marsh). For the remaining uncommon plant communities, there is insufficient data to determine status and trend.

The proposed Shoreline Plan will designate some public lands as Shorezone Preservation Areas (Exhibit 2-12) and will prohibit construction of private shorezone structures in such areas. Some of these types of plant communities, such as the Upper Truckee Marsh and Taylor Creek Marsh, intersect with some sections of the shorezone around Lake Tahoe (see Exhibit 2-12 on page 2-25 of the Draft EIS). These areas are located within Stream Mouth Protection Zones and shorezone preservation areas. Pope Marsh is located within a shorezone preservation area. The TRPA Code (Sections 84.5.1.B, 84.6.1.B, 84.7.1.B, 84.8.1.B, and 84.9.2) prohibits the placement of new piers, boat ramps, buoys, floating platforms, and general multiple-use facilities within Stream Mouth

Protection Zones surrounding the inlet of the 24 major streams and rivers that drain into Lake Tahoe. The Shoreline Plan will maintain the prohibition on these shorezone structures in Stream Mouth Protection Zones and will expand the provision to encompass all mooring types.

As discussed in the 2015 Threshold Evaluation, although the factors that affect distribution and abundance of deep water plants are not well understood, it is anticipated that water quality in the lake is a contributing factor to their survival (i.e., suspended particles, atmospheric deposition, nutrient loading, urban development, and local/regional climate change; (TRPA 2016)). Additionally, removal of crayfish in the lake may also support increases in spatial and depth extent of deep water plant beds. As discussed for the air quality and water quality thresholds, above, implementation of the Shoreline Plan will contribute to maintenance of these threshold standards. Additionally, due to the depth of the deepwater plant populations, ranging between 30 and 55 meters (between 98 and 180 feet), construction of shorezone structures will not disturb these populations.

For these reasons, the implementation of the Shoreline Plan will not affect maintenance or attainment of the uncommon plant community threshold.

Sensitive Plants Threshold

The latest Threshold Evaluation indicated that almost all of the sensitive plants thresholds, including for Tahoe yellow cress (TYC), are in attainment. The threshold for Galena Creek rockcress is not in attainment.

TYC is a sensitive plant species found only on the sandy beaches of Lake Tahoe. As discussed in Impact 14-2 in the Draft EIS, with implementation of the Shoreline Plan, TYC plants that are present in areas of potential disturbance be identified before construction and disturbances to those plants will be avoided. To protect TYC plants from potential long-term increased beach use and disturbance as an indirect result of increased recreation activity in the shorezone, protective fencing and educational signage about the need to avoid these areas will be installed around all TYC clusters on beaches that may be affected.

Tahoe draba, long-petaled lewisia, Cup Lake draba, and Galena Creek rockcress are not located within the shorezone. Therefore, implementation of the Shoreline Plan will not remove or degrade population sites for any of these species. For these reasons, the Shoreline Plan will not affect the attainment status of the sensitive plants threshold.

Late Seral and Old Growth Thresholds

The 2015 Threshold Evaluation Report indicated that the late seral and old growth forest ecosystem thresholds are not in attainment.

As discussed on page 14-1 of Chapter 14, Terrestrial Biological Resources (Wildlife and Vegetation), in the Draft EIS, implementation of the Shoreline Plan will not generate construction or uses that will affect old growth forest ecosystems; and, any future tree removal required for the construction of new facilities (e.g., marinas, piers, and boat ramps) in the shorezone will be

relatively minor and likely similar in magnitude to potential effects that could occur under current ordinances. Therefore, the Shoreline Plan will not affect the attainment status of the late seral and old growth thresholds.

Vegetation Threshold Gain from the Shoreline Plan

The Shoreline Plan will designate some public lands as Shorezone Preservation Areas and will prohibit construction of private shorezone structures in such areas, which will protect vegetation communities in those areas. To protect TYC plants from disturbance in the shorezone, protective fencing and educational signage about the need to avoid these areas will be installed around all TYC clusters on beaches. This will provide new protection for these TYC clusters and promote the continued maintenance of the threshold. Also see the discussion under the headers “Benefits of the Shoreline Plan Related to the Air Quality Thresholds” and “Benefits of the Shoreline Plan Related to the Water Quality Thresholds,” which describes features of the Shoreline Plan that could have secondary benefits for vegetation in the shorezone.

Other Regional Planning Strategies that Contribute to Vegetation Threshold Gain

The Goals and Policies in the Regional Plan provide direction for attainment of vegetation thresholds and are contained in the Vegetation Subelement of the Conservation Element. See pages 4-2 through 4-9 in Chapter 4, Conservation, of the Lake Tahoe Regional Plan Goals and Policies. The Vegetation Subelement goals and policies support preservation and protection of certain plant communities and species while permitting increased opportunities to manage the vegetation for diversity, fire prevention, and health. These goals and policies provide for a wide mix and increased diversity of plant communities; protection, maintenance, and restoration of wetlands, meadows, and other riparian vegetation; conserving threatened, endangered, and sensitive-plant species and uncommon plant communities; increasing the amount of late seral/old-growth stands; and appropriate stocking level and distribution of snags and coarse woody debris. While there are many programs and policies that contribute to vegetation threshold attainment, the major regional strategies include:

- ▲ The TRPA Code requires the protection and maintenance of all native vegetation types. TRPA Code Section 61.3, Vegetation Protection and Management, provides for the protection of SEZ vegetation, other common vegetation, uncommon vegetation, and sensitive plants in SEZs. No project or activity may be implemented within the boundaries of an SEZ except as otherwise permitted for habitat improvement, dispersed recreation, vegetation management, or as provided in TRPA Code Chapter 30, Land Coverage. TRPA can require the preparation and implementation of a remedial vegetation management plan, where the need has been identified, for the purposes of threshold standard maintenance or attainment. In addition, TRPA Code Section 61.4, Revegetation, specifies minimum criteria for revegetation programs. TRPA Code Section 61.1, Tree Removal, regulates the management of forest resources to achieve and

maintain the environmental threshold standards for species and structural diversity, to promote the long-term health of natural resources, to restore and maintain suitable habitats for native wildlife species, and to reduce accumulations of hazardous fuels to decrease the likelihood of catastrophic wildfire events.

- ▲ TRPA regulates the management of forest resources in the Tahoe Basin to achieve and maintain the threshold standards for species and structural diversity, to promote the long-term health of the resources, and to create and maintain suitable habitats for diverse wildlife species. Tree removal is subject to review and approval by TRPA. Provisions for tree removal are provided in the following chapters and sections of the TRPA Code: Chapter 61, Vegetation and Forest Health; Section 61.1, Tree Removal; Section 61.3.6, Sensitive and Uncommon Plant Protection and Fire Hazard Reduction; Section 61.4, Revegetation; Chapter 36, Design Standards; Chapter 33, Grading and Construction; and Section 33.6, Vegetation Protection During Construction. The USFS, Tahoe Fire and Fuels Team (TFFT), Conservancy, CSP, NDF, and the five fire protection districts and one fire department in the Lake Tahoe Region manage fuels reduction treatments and follow all applicable local, state, and federal laws, and employ resource professionals to plan and implement their projects. Entities implementing forestry projects in the Region follow the TRPA Code and work closely with TRPA foresters when planning and implementing projects. When protection measures required by TRPA differ from local, state, or federal laws, the strictest protection measures are implemented.
- ▲ The EIP has a fuels reduction and ecosystem restoration program. To date more than 59,000 acres of forest treatments have been completed in the Region in support of sustaining native vegetation communities (TRPA 2016). Treatments primarily include understory tree removal, biomass mastication, prescribed broadcast burning, and pile burning. Forest fuel treatments have been shown to reduce both the severity and tree mortality of forest fires. Tree mortality in the absence of fires has also been found to be lower in lower density stands. Prevention of catastrophic wildfires is essential to maintaining the diversity and richness of vegetation in the Region (TRPA 2016).
- ▲ The Home Landscaping Guide for Lake Tahoe and Vicinity provides guidance for homeowners and includes landscaping recommendations for balancing erosion control with fire defensible space.
- ▲ In response to the placement of TYC on the candidate list under Endangered Species Act in 1999, a multi-agency and private interest group task force was formed to develop and implement a conservation strategy to promote the recovery and conservation of TYC through adaptive management and cost sharing. The TYC Adaptive Management Working Group (AMWG) includes representatives from TRPA, USFS, U.S. Fish and Wildlife Service (USFWS), CSP, Conservancy, California Department of Fish

and Wildlife (CDFW), California State Lands Commission (CSLC), NDSL, Nevada Division of State Parks, Nevada Division of Forestry, Nevada Natural Heritage Program, Tahoe Lakefront Owner's Association, and the League to Save Lake Tahoe. Other agencies have also participated. The Conservation Strategy for TYC was originally finalized in 2002 and is being implemented by the 13 entities listed as monitoring partners above under a memorandum of understanding/conservation agreement (MOU/CA). The revised Conservation Strategy for TYC was completed in October 2015 (Stanton and TYCAMWG 2015). The conservation strategy represents both a synthesis and significant expansion of TYC information and includes sections on TYC ecology, threats, conservation history, management goals and actions, the stewardship program, and regulatory framework. A field research program that extended from 2003 to 2010 increased the understanding of TYC ecology and identified the optimal planting techniques, plant characteristics, habitat conditions, and logistical factors that influence restoration/mitigation success. The suite of management and restoration actions described in the revised conservation strategy provides options for avoiding, minimizing, and mitigating impacts to TYC and its habitat on public and private lands. It also recognizes the critical role of private landowners in ensuring the long-term survival of TYC, and presents the TYC Stewardship Program, which is aimed at gaining landowner participation and implementing strategies that respect private property rights.

- ▲ The soil conservation threshold strategies described in Section C, above, result in the protection and restoration of sensitive lands and directly contribute to the attainment of vegetation thresholds.

Conclusion

For the reasons described above, and based on the Shoreline Plan EIS, Regional Plan Update Final EIS, the 2015 Threshold Evaluation Report, and Regional Plan Update Threshold Findings (TRPA 2012a), the Regional Plan, as amended by the Shoreline Plan, will continue to achieve and maintain the vegetation thresholds.

E. Fisheries

This section summarizes the effects of implementing the Regional Plan, as amended by the Shoreline Plan, on the thresholds established for fisheries. The following indicator reporting categories for fisheries have been established by TRPA:

- ▲ Lake Habitat,
- ▲ Stream Habitat,
- ▲ Instream Flows, and
- ▲ Lahontan Cutthroat Trout (*Oncorhynchus clarki henshawi*).

Effects of the Shoreline Plan on Fisheries Thresholds

Lake Habitat Threshold

The 2015 Threshold Evaluation indicated that the lake habitat threshold is in attainment. The lake habitat threshold standard is listed as a management standard with a numeric target to achieve the equivalent of 5,948 acres of “prime” fish habitat. Prime fish habitat includes spawning habitat and feed and cover habitat. Spawning habitats are composed of relatively small diameter gravel substrates used by native minnows for spawning and rearing fry. Feed and cover habitats are composed of larger diameter cobbles, rocks, and boulders, used by fish as foraging habitat and to provide refuge from predation.

As described in Impact 5-2 in the Draft EIS, the Shoreline Plan will require that projects implement prime fish habitat replacement at a 1.5:1 ratio. Using the assumptions described in the “Methods and Assumptions” on pages 5-20 and 5-21 of the Draft EIS and Table 5-2 on page 5-27, the Shoreline Plan will result in the creation of 18,009 sq. ft. (or 0.41 acre) of prime fish habitat, benefitting the Lake Habitat Threshold.

Based on the evaluation in Chapter 5, “Fisheries and Aquatic Biological Resources” in the Draft EIS, the Shoreline Plan will not result in other significant impacts to fisheries. For these reasons, implementation of the Shoreline Plan will contribute to maintenance of the Lake Habitat Threshold.

Stream Habitat and Instream Flow Thresholds

The 2015 Threshold Evaluation Report indicated that the threshold for miles of stream habitat in excellent condition is in attainment. The thresholds for miles of stream habitat in good condition and miles of stream habitat in marginal condition are not in attainment. The instream flow thresholds are in attainment.

Implementation of the Shoreline Plan will not result in new structures within stream habitats or result in changes to instream flows. Currently, TRPA recognizes 24 stream mouths from which shore development is prohibited within 200 feet on either side of the stream. TRPA Code (Sections 84.5.1.B, 84.6.1.B, 84.7.1.B, 84.8.1.B, and 84.9.2) prohibits the placement of new piers, boat ramps, buoys, floating platforms, and general multiple-use facilities within Stream Mouth Protection Zones around the inlet of the 24 major streams and rivers that drain into Lake Tahoe (Exhibit 2-12 on page 2-24 of the Draft EIS). As discussed on page 2-23 in Chapter 2, Description of Proposed Project and Alternatives, of the Draft EIS, the proposed Shoreline Plan will maintain the prohibition on these shorezone structures in Stream Mouth Protection Zones and will expand the provision to encompass all mooring types. It will also provide new incentives to encourage the relocation of existing piers from these areas, by allowing relocated single-use piers to qualify for multiple-use design standards (i.e., those standards that will apply to a pier serving two parcels; see Table 2-5 on page 2-27 of the Draft EIS) and by offering upland scenic credits for relocated piers. Implementation of the Shoreline Plan will contribute to the attainment and maintenance of the

stream habitat thresholds and will not interfere with maintenance of the instream flow thresholds.

Lahontan Cutthroat Trout Threshold

The 2015 Threshold Evaluation Report indicated that the Lahontan cutthroat trout (LCT) threshold is in attainment. The potential impacts from implementation of the Shoreline Plan on LCT are analyzed in the Draft EIS in Impacts 5-3, 5-4, and 5-5. Nearshore construction activities and permanent habitat modification from nearshore structures under the Shoreline Plan have little to no potential to adversely affect adult and subadult LCT because they occupy habitats near the lake bottom in deep waters through the year. Adult LCT occurrence in nearshore habitat will primarily occur during spawning migrations into tributary streams, which generally occurs from February through July. However, the Shoreline Plan includes a buffer limiting construction near stream mouths which will provide protection from potential construction impacts for migrating LCT. Furthermore, construction activities associated with placement of shorezone structures will be required to implement resource protection provisions (Table 2-3 in Chapter 2, Description of Proposed Project and Alternatives, of the Draft EIS), and to adhere to the provisions of the Standard Conditions of Approval for Shorezone Structures and the TRPA *Best Management Practices Handbook*.

Construction-related effects to migrating juvenile LCT will be minimal because: (1) they will move laterally along the shoreline, away from construction disturbance (i.e., turbidity or noise), to nearshore areas of the lake that are unaffected; and (2) construction disturbance will be temporary in nature. Nearshore structures resulting in permanent habitat modification under the Shoreline Plan will have minimal effects on migrating juvenile LCT because the area of habitat disturbance will be very small relative to the available habitat and for many of the same reasons that construction-related effects will be minimal.

Recreation-related effects to LCT will be limited because adult and subadult LCT are open water species that do not generally use nearshore habitat where increased angling from piers and direct contact from boating is anticipated to occur. Also, adult and subadult LCT generally use the colder, deeper portions of the lake in the summer and will not be susceptible to entrainment or propeller strikes. Recreation-related effects to juvenile LCT will be limited for a number of reasons, including juvenile LCT will not be expected to use nearshore habitats within marinas; they utilize vegetated nearshore habitats and due to their small size they will not be targeted by recreational anglers; boat noise and disturbance will be temporary; and nearshore boating-related propeller entrainment and substrate disturbance effects to LCT will be minimal and will not be expected to affect population size.

For the reasons described herein, and further assessed in Impacts 5-3, 5-4, and 5-5 in the Draft EIS, implementation of the Shoreline Plan will support the continued maintenance of threshold standards for LCT.

Fisheries Threshold Gain from the Shoreline Plan

The Shoreline Plan requires that projects in areas designated by TRPA as prime fish habitat to replace disturbed prime fish habitat at a 1.5:1 ratio. Habitat replacement could occur on site or elsewhere adjacent to existing prime fish habitat and will involve the creation of physical habitat by placing gravel, cobble, or boulder substrate. Habitat replacement will replace the same type of substrate affected by the project. This will result in a net increase in the amount of prime fish habitat, directly benefiting the Lake Habitat Threshold.

The Shoreline Plan will also provide new incentives to encourage the relocation of existing piers from sensitive areas, by allowing relocated single-use piers to qualify for multiple-use design standards and by offering upland scenic credits for relocated piers as part of the new scenic credit banking program, as described below. The Shoreline Plan will maintain the TRPA Code prohibition on shorezone structures in Stream Mouth Protection Zones and will expand the provision to encompass all mooring types. Resource protection measures included in the Shoreline Plan (Table 2-3 in Chapter 2, Description of Proposed Project and Alternatives, of the Draft EIS) will also contribute to threshold gain for the fisheries thresholds. The water quality benefits of the Shoreline Plan, described in Section B, above, will also benefit fisheries thresholds.

Other Regional Planning Strategies that Contribute to Fisheries Threshold Gain

The Goals and Policies in the Regional Plan that support attainment and maintenance of the fisheries thresholds and are contained in the Fisheries Subelement of the Conservation Element. See pages 4-12 through 4-14 in Chapter 4, Conservation, of the Lake Tahoe Regional Plan Goals and Policies. The Fisheries Subelement goals and policies support improving aquatic habitat essential for the growth, reproduction, and perpetuation of existing and threatened fish resources in the lake, such as fish habitat. While there are many programs and policies that contribute to fisheries threshold attainment, the major regional strategies include:

- ▲ TRPA regulates projects and activities in Lake Tahoe's shorezone and littoral zone that may affect lake fish habitat. Both prevention and control efforts related to AIS in the lake help maintain habitat for native species. Watershed restoration work that reduces sediment loads in the Basin's lakes and waterways can help prevent spawning substrates from being covered in fine sediment. The water quality and soil conservation strategies described above also benefit the fisheries thresholds.
- ▲ The EIP includes program areas that implement projects that will contribute to threshold gain for the fisheries thresholds, including the Stormwater Management Program; Watershed Management Program; Threatened, Endangered, and Sensitive Species Program; and Invasive Species Program. From 2011 through 2017, over 16 miles (approximately 85,000 linear feet) of stream have been restored or enhanced through the Watershed Management Program of the EIP (Lake Tahoe Info 2018a).

Under the EIP, the USFS and other agencies, such as the Conservancy, have implemented and are planning several large-scale stream restoration projects at Cook House Meadow, Big Meadow Creek, Blackwood Creek, Cold Creek, Angora Creek, Trout Creek and Meeks Creek, as well as the Upper Truckee River. Projects that benefit fish habitat completed by EIP partners between 2009 and 2015 have:

- BMP retrofitted 120.55 miles of road and decommissioned 7.4 miles of road;
 - Restored or enhanced 120 acres of disturbed forested uplands;
 - Inspected 108.72 miles and maintained 98.2 miles of unpaved non-urban roads; and
 - Issued 18,076 BMP certificates to commercial, multi-family, and single-family residential properties.
- ▲ TRPA and other agencies (e.g., Lahontan RWQCB, CDFW, and USACE) regulate projects and activities in SEZs, including activities in the stream itself.
 - ▲ Several agencies in the Tahoe Basin are implementing restoration and research projects to support recovery of LCT (TRPA 2016). In 2002, the USFWS introduced LCT to Fallen Leaf Lake in a pilot project to learn what conditions are necessary for successful restoration of LCT in a lake environment. In 2008, the USFS began implementing the Upper Truckee River Lahontan Cutthroat Trout Restoration Project downstream of the existing Meiss meadows population referred to as the “expansion area”. In 2011, the Nevada Department of Wildlife stocked approximately 22,000 LCT in Lake Tahoe as part of the work to begin stocking native aquatic species for the benefit of anglers.

Conclusion

For the reasons described above, and based on the Shoreline Plan EIS, Regional Plan Update Final EIS, the 2015 Threshold Evaluation Report, and Regional Plan Update Threshold Findings (TRPA 2012a), the Regional Plan, as amended by the Shoreline Plan, will continue to achieve and maintain the fisheries thresholds.

F. Wildlife

This section summarizes the effects of implementing the Regional Plan, as amended by the Shoreline Plan, on the thresholds established for wildlife. The following indicator reporting categories for wildlife have been established by TRPA:

- ▲ Special Interest Species, and
- ▲ Habitats of Special Significance.

Effects of the Shoreline Plan on Wildlife Thresholds

Special Interest Species Thresholds

The 2015 Threshold Evaluation Report indicated that threshold standards for osprey, bald eagles, peregrine falcons, and disturbance free zones management standards are in attainment. The waterfowl population sites threshold is in nonattainment. The attainment status for northern goshawk, golden eagle, and deer thresholds is unknown due to insufficient information.

With implementation of the Shoreline Plan, effects on the overall Tahoe Basin osprey and bald eagle populations is not expected to be substantial (see Impact 14-1 in the Draft EIS). Future projects implemented under the Shoreline Plan will be required to implement Mitigation Measure 14-1a, that requires conducting preconstruction surveys for nesting ospreys and bald eagles and implementing measures to avoid or minimize effects of construction-related disturbance on nesting activity and breeding success. This measure also requires avoiding the placement of new shorezone structures within TRPA-designated disturbance zones for osprey and bald eagle, to the extent feasible. For projects and uses that may result in unavoidable increased human intrusion into the terrestrial/upland portions of TRPA osprey or bald eagle disturbance zones, signage that describes the sensitivity of the area and discourages users to leave established trails or access routes or otherwise disturb nesting osprey or bald eagle will be designed and installed. For projects that may cause unavoidable long-term degradation of habitat within osprey or bald eagle disturbance zones, this measure also requires coordination with TRPA to occur to identify and implement appropriate compensatory measures that are effective and feasible for achieving TRPA's nondegradation standard for disturbance zones. Despite steady levels of recreation activity and other uses in the shorezone over the last several decades, the osprey and bald eagle population has been increasing and the number of active nests has been consistently well above TRPA's threshold standard for the species. Therefore, the Shoreline Plan will support continued maintenance of the thresholds for osprey and bald eagle.

Because existing TRPA regulations prevent new projects from directly degrading wetland and riparian habitats, including mapped waterfowl population sites (TRPA Code Section 62.3.3), the construction of future shorezone facilities within TRPA waterfowl population sites that could degrade waterfowl habitat conditions will not be permitted under the Shoreline Plan. Future projects implemented under the Shoreline Plan will be required to implement Mitigation Measure 14-1b, that requires completion of preconstruction surveys for waterfowl. If avoidance of an active nest is not feasible or conflicts with project objectives, a limited operating period shall apply to avoid disturbances during the sensitive nesting season. Construction shall be prohibited within a minimum of 500 feet (or at a distance directed by the appropriate regulatory agency) of the nest to avoid disturbance until the

nest is no longer active.

With implementation of these measures, the Shoreline Plan will contribute to maintenance of the osprey, bald eagle, and waterfowl thresholds.

Other special interest species (e.g., northern goshawk, golden eagle, peregrine falcon, and deer) could use or occur in portions of the shorezone area but are not expected to be affected considerably by implementation of the Shoreline Plan (see page 14-11 in Chapter 14, Terrestrial Biological Resources, of the Draft EIS). Therefore, implementing the Shoreline Plan will not affect the attainment status for northern goshawk, golden eagle, peregrine falcon, or deer thresholds.

Wildlife Threshold Gain from the Shoreline Plan

Because the Shoreline Plan is focused on the shorezone and lakezone, it provides little opportunity to achieve threshold gain for terrestrial wildlife species, which primarily occur outside of this area. The Shoreline Plan's benefits to soil conservation, fisheries, and vegetation (as described above) will all indirectly benefit wildlife thresholds.

Other Regional Planning Strategies that Contribute to Wildlife Threshold Gain

The Goals and Policies in the Regional Plan that provide direction for attainment of the wildlife thresholds are contained in the Wildlife Subelement of the Conservation Element. See pages 4-10 through 4-11 in Chapter 4, Conservation Element, of the TRPA Regional Plan Goals and Policies. These goals and policies provide direction for maintaining suitable habitat for wildlife species and preserving, enhancing, and expanding habitats for threatened, endangered, rare, or sensitive species found in the Region. While there are many programs and policies that contribute to wildlife threshold attainment, the major regional strategies include:

- ▲ Chapter 62 of the TRPA Code includes the following requirements for protection of wildlife movement and migration corridors.
- ▲ SEZs adjoining creeks and major drainages that link islands of habitat will be managed, in part, for use by wildlife as movement corridors. Structures, such as bridges, proposed within these movement corridors will be designed to avoid impairment of wildlife movement.
- ▲ Projects and activities in the vicinity of deer migration areas will be required to mitigate or avoid significant adverse impacts.
- ▲ Chapter 62 of the TRPA Code also contains several provisions regarding critical habitat, which applies to habitat for special-interest species native to the Tahoe Basin whose breeding populations have been extirpated but could return or be reintroduced. The TRPA Code includes the following critical-habitat provisions.

- ▲ No project or activity will cause, or threaten to cause, the loss of any habitat component considered critical to the survival of a particular wildlife species.
- ▲ No project or activity will threaten, damage, or destroy nesting habitat of raptors and waterfowl or fawning habitat of deer.
- ▲ Wetlands shall be preserved and managed for their ecological significance, including their value as nursery habitat to fishes, nesting and resting sites for waterfowl, and as a source of stream recharge, except as permitted pursuant to Chapter 30 of the TRPA Code.
- ▲ TRPA does not permit projects that will disturb nesting osprey, spotted owl, bald eagle, or peregrine falcon or their habitat within a non-disturbance zone surrounding known nests. The USFS monitors active nests for these species and has initiated public outreach in collaboration with local rock climbers to limit the use of rock climbing routes near active peregrine falcon nests.
- ▲ Three EIP programs directly benefit wildlife thresholds: watershed management; threatened, endangered and sensitive species; and invasive species. These programs actively restore wildlife habitat and protect sensitive wildlife species. These programs have resulted in the following accomplishments (TRPA 2018):
 - ▲ Protected over 1,400 acres of sensitive species habitat since 2011,
 - ▲ Restored or enhanced over 11,600 acres of wildlife habitat since 2007,
 - ▲ Re-established 28 sites containing special status species since 2009,
 - ▲ Acquired more than 3,099 acres of SEZ and wetland habitat.
 - ▲ Restored or enhanced nearly 380 acres of SEZ habitat since 2012, and
 - ▲ Treated over 1,300 acres to control terrestrial invasive species since 2009.
- ▲ In addition, the threshold attainment strategies described in Sections C, D, and E, above, for the soil conservation, vegetation, and fisheries thresholds, also benefit wildlife thresholds.

Conclusion

For the reasons described above, and based on the Shoreline Plan EIS, Regional Plan Update Final EIS, the 2015 Threshold Evaluation Report, and Regional Plan Update Threshold Findings (TRPA 2012a), the Regional Plan, as amended by the Shoreline Plan, will continue to achieve and maintain the wildlife thresholds.

G. Scenic Resources

This section summarizes the effects of implementing the Regional Plan, as amended by the Shoreline Plan, on the thresholds established for scenic resources. The following indicator reporting categories for scenic resources have been established by TRPA:

- ▲ Roadways and Shoreline Units,
- ▲ Other Areas (including bike trail and public recreation areas), and
- ▲ Built Environment or Community Design.

Effects of the Shoreline Plan on Scenic Resources Thresholds

Roadways and Shoreline Units, and Other Areas Thresholds

The 2015 Threshold Evaluation Report indicated that most of the shoreline travel units are in attainment with the exception of Rubicon Bay, Ward Creek, Tahoe City, Lake Forest, Cedar Flat, Carnelian Bay, Brockway, Crystal Bay, Cave Rock, Lincoln Park, and Edgewood (see Exhibit 9-4 on page 9-5 and of the Draft EIS). More than half of the roadway travel units are in attainment. Roadway travel units with views of the lake that are not in attainment include Crystal Bay, Outlet (Placer County), Meeks Bay, Tahoma, Homewood, and Sunnyside (see Exhibit 9-6 on page 9-8 of the Draft EIS). As stated in the latest Threshold Evaluation, 381 of the 390 public recreation areas and bike trail scenic resources are in attainment.

Impact 9-1 in the Draft EIS analyzed the effects of implementation of the Shoreline Plan on views of the shore from Lake Tahoe. Impact 9-2 analyzed the effects on views of Lake Tahoe from the shore. Implementation of the Shoreline Plan will authorize new shorezone structures that could affect views from Lake Tahoe toward the shore or views of the lake from the shore. New, modified, or expanded shoreline structures will be required to comply with applicable design standards. The visible mass of piers will be restricted, and all piers, boat lifts, boat ramps, marinas, or other similar structures will be required to offset increases in visible mass at ratios that will result in a net reduction in the amount of visible mass that can be seen from Lake Tahoe. In addition, these structures will be evaluated under the visual magnitude system in TRPA Code Section 66.3. New or expanded structures will require scenic improvements in the shoreland to achieve minimum required contrast ratings.

Mitigation Measure 9-1a will require the payment of annual scenic mitigation fees for all buoys. These funds will be used to fund scenic improvement projects in shoreline travel units that are not in attainment. Mitigation Measure 9-1b will require that piers be a color that does not contrast with the background view of the project site. With implementation of these mitigation measures, buildout of the Shoreline Plan, in combination with the other design standards, visible mass offsets, scenic improvements required to attain required contrast ratings, and project-level scenic analysis requirements will result in a net reduction the mass of human-made structures visible from Lake

Tahoe, and scenic improvements to existing development in the shoreland. For these reasons, the Shoreline Plan will contribute to the maintenance and attainment of the roadway and shoreline units and public recreation areas and bike trails thresholds.

Built Environment Thresholds

The TRPA community design threshold is a policy statement that applies to the built environment and is intended to ensure that design elements of buildings are compatible with the natural, scenic, and recreational values of the Region. The 2015 Threshold Evaluation Report indicated that this threshold is being implemented.

As described above under “Roadways, Shoreline Units, and Other Areas Thresholds,” implementation of future projects under the Shoreline Plan will be required to comply with applicable design standards and the Shoreline Plan will establish color standards for new or expanded piers to ensure that piers will better blend into the background. Because future shorezone structures will be required to comply with design standards established by TRPA for implementation of this threshold standard, the Shoreline Plan will contribute to maintenance of this threshold.

Scenic Resources Threshold Gain from the Shoreline plan

The Shoreline Plan will establish new limits on the amount of visible mass allowable with a pier. It will also increase the required visible mass offset requirements from the current maximum of 1:1.5 to 1:3, a doubling of the maximum required visible mass offsets. As described in the Draft EIS (page 9-25), this will result in an estimated net reduction of approximately 95,000 square feet of visible mass associated with piers, boat lifts, and boat ramps, which will directly benefit scenic thresholds.

The Shoreline Plan will also include an annual buoy scenic mitigation fee. This fee will be assessed on all mooring buoys, including existing buoys already on the lake. It will provide an ongoing funding source that will be dedicated to implementing scenic improvement projects along the shoreline. These projects will be located within the 11 shoreline travel units that are not in attainment of threshold standards and will directly contribute to bringing those units into attainment with scenic thresholds.

In addition, the Shoreline Plan will require that applicants for new, expanded, or modified piers meet minimum contrast ratings under the TRPA Visual Magnitude System. This system has resulted in steady improvements in scenic threshold ratings for shoreline travel units, and the Shoreline Plan requirement will accelerate the pace of this scenic improvement.

Other Regional Planning Strategies that Contribute to Scenic Threshold Gain

The goals and policies in the Regional Plan that provide direction for attainment of the scenic thresholds are contained in the Scenic Subelement of the Conservation Element. See pages 4-18, 4-20, and 4-22 through 4-23 in Chapter 4, Conservation Element, of the TRPA Regional Plan Goals and Policies. In addition, the Shorezone Subelement includes goals and policies

that address the scenic quality of the shoreline. These goals and policies provide direction for maintaining and restoring the scenic qualities of the natural landscape and improving opportunities for viewing the lake from roadways. While there are many programs and policies that contribute to scenic threshold attainment, the major regional strategies include:

- ▲ The TRPA Code specifies design standards and guidelines for new development and redevelopment projects that are tailored to the character of unique communities around the Region. The TRPA Code also includes minimum design standards for development or redevelopment in upland areas that could be visible from Lake Tahoe. Chapter 66 of the TRPA Code (i.e., Scenic Shoreland Ordinances) includes design standards to protect shoreline areas from scenic degradation due to development and is intended to attain the threshold standards as older development is gradually replaced with newer development that has reduced visual impacts. The 2015 Threshold Evaluation Report found that these ordinances were responsible for the improving trend in scenic threshold scores (TRPA 2016).
- ▲ Area plans and community plans provide specific design standards and guidelines applicable to local areas. As necessary, specific measures to improve the aesthetics of individual projects are required by TRPA or a local jurisdiction as a condition of the permit that is issued.
- ▲ The existing shorezone partial permitting program screening criteria require a pier rebuild project to offset any increase in visible mass at a 1:1 ratio in shoreline travel units that are in attainment of threshold standards, and at a 1.5:1 ratio in units that are not in attainment (TRPA 2011). As described above, this ration will be increased to a maximum of 1:3 under the Shoreline Plan.
- ▲ The Scenic Quality Improvement Program (SQIP) was adopted by TRPA to provide a program for implementing physical improvements to the built environment. The SQIP contributes to the attainment of the scenic thresholds and serves as an implementation guide for the Regional Plan.
- ▲ The EIP incorporates elements of the SQIP. The EIP includes a list of specific projects throughout the Basin that are needed to improve scenic conditions and achieve scenic threshold targets (TRPA 2010). The EIP includes program elements to improve the scenic quality of roadways and shorelines.
- ▲ The USFS designs new recreation facilities in compliance with its national Built Environment Image Guide.

Conclusion

For the reasons described above, and based on the Shoreline Plan EIS,

Regional Plan Update Final EIS, the 2015 Threshold Evaluation Report, and Regional Plan Update Threshold Findings (TRPA 2012a), the Regional Plan, as amended by the Shoreline Plan, will continue to achieve and maintain the scenic thresholds.

H. Noise

This section summarizes the effects of implementing the Regional Plan, as amended by the Shoreline Plan, on the thresholds established for noise. The following indicator reporting categories for noise have been established by TRPA:

- ▲ Single Noise Events, and
- ▲ Cumulative Noise Events.

Effects of the Shoreline Plan on Noise Thresholds

Single Noise Events Threshold

Single noise event threshold standards adopted by TRPA are based on the numerical value associated with the maximum measured level in acoustical energy during an event. This threshold establishes maximum noise levels for aircraft, watercraft, motor vehicles, motorcycles, off-road vehicles, and snowmobiles. The 2015 Threshold Evaluation Report indicated that the thresholds for aircraft departures/arrivals and watercraft shoreline test are not in attainment. The attainment status for the remaining single noise events thresholds, including for watercraft (stationary test) and watercraft (pass-by-test), is unknown due to insufficient information. Generally, adopted noise threshold standards for these noise sources are the same as those adopted by state and local jurisdictions and represent noise levels from properly maintained and unmodified equipment. Implementation of the Shoreline Plan will not increase trips made by aircraft, motorcycles, off-road vehicles, and snowmobiles and, thus, will not affect attainment of thresholds related to these single-event noise sources.

Impacts 12-3 and 12-4 in the Draft EIS address single-event noise impacts from increases in operation-related watercraft noise and operation-related traffic noise, respectively. Primary factors influencing single noise event exceedances for these sources of noise include modified exhaust systems, engine type, and individual boater behavior. Under the Shoreline Plan, TRPA will expand enforcement of current regulations and boater education designed to reduce single-event boat noise within the no-wake zone through additional boat crews, signage, and increased boater education, which will reduce or avoid boater behaviors that contribute to exceedances of single-event noise standards. The Shoreline Plan will also establish new restrictions on boats that exceed noise standards and will enhance noise monitoring and adaptive management capabilities.

Implementation of the Shoreline Plan will result in an estimated 632 daily vehicle trips during peak boating season. As discussed under Impact 12-3 in

the Draft EIS, a doubling of a noise source results in a 3-dBA increase in noise. Of the 24 study roadway segments, the lowest existing traffic volume of 3,400 daily trips occurs on State Route (SR) 89 from U.S. 50 to Pomo Street. Even in the highly unlikely situation that all new trips occurred on this segment, existing volumes will not double and traffic noise increases will be less than 3 dBA. For the reasons described above, the Shoreline Plan will not affect attainment of single noise event standards.

Cumulative Noise Events Thresholds

TRPA adopted Community Noise Equivalent Level (CNEL) standards for different zones within the Region to account for varying degrees of noise sensitivity and desired levels of serenity. Different CNEL levels apply to different land use categories and transportation corridors. The specific CNEL standards for each location are identified within the applicable plan area statement, community plan, or area plan. TRPA threshold evaluations consider large areas of land uses. As of the latest Threshold Evaluation, many of the land use categories and some of the transportation corridor CNEL thresholds are in attainment. Areas not in attainment of the CNEL thresholds include: high-density residential areas; critical wildlife habitat areas; the South Lake Tahoe Airport; and the SR 28, SR 89, SR 207, and SR 267 transportation corridors.

Construction noise and vibration impacts from implementation of the Shoreline Plan are addressed in Impacts 12-1 and 12-2 of the Draft EIS. Construction activities will be consistent with TRPA's standard permit conditions that require measures to minimize the exposure of nearby receptors to construction-related noise. One of the key required measures is to limit noise-generating construction activity to the hours between 8:00 a.m. and 6:30 p.m. In addition, the construction activities associated with all project components will be relatively minor, temporary, localized, and intermittent, not resulting in a substantial temporary increase in noise. Because construction activities will occur during exempted hours, the TRPA CNEL thresholds will not apply.

As discussed in Impact 12-3 of the Draft EIS, boating is generally a daytime activity and increases in boating activity will be distributed across the lake. Therefore, boating will have a negligible effect on CNEL, which considers noise levels in a given location over a 24-hour period. Additionally, increased enforcement of the no-wake zone will reduce boat noise near the shoreline, which will reduce the overall effect of boat noise on the CNEL standards. Thus, increases in boating activity will have little to no effect on land use-based CNEL threshold standards.

Noise Threshold Gain from the Shoreline Plan

The Shoreline Plan will increase enforcement of the no-wake zone, which will reduce boat noise near the shore. A new funding source will be created to establish an additional TRPA boat crew to increase enforcement of the no-wake zone. New signage will be installed in key areas along the shoreline such as marinas and state parks to remind boaters of the no-wake zone rules, and TRPA will increase education and training for staff at boat inspection sites and

motorized rental concessions to increase public awareness of the no-wake zone rules around the lake. The Shoreline Plan will prohibit the use of certain boats that exceed single-event noise standards, which will directly reduce the number of single-event noise exceedances. The Shoreline Plan will also fund enhanced shoreline noise monitoring including equipping noise monitors with cameras that can positively identify boats that cause noise exceedances. This expended monitoring, will allow TRPA to more effectively enforce noise regulations and adaptively manage activities that contribute to noise exceedances.

Other Regional Planning Strategies that Contribute to Noise Threshold Gain

The goals and policies in the Regional Plan that provide direction for attainment of the noise thresholds are contained in the Noise Subelement of the Land Use Element. See pages 2-29 through 2-31 in Chapter 2, Land Use Element, of the TRPA Regional Plan Goals and Policies. The Noise Subelement of the Goals and Policies document includes a goal and associated policies to attain and maintain single-event noise standards and a goal and associated policies to attain and maintain community noise equivalent levels. While there are many programs and policies that contribute to noise threshold attainment, the major regional strategies include:

- ▲ TRPA's Watercraft Team enforces a 600-foot no-wake zone for the shorezone to reduce shoreline noise levels.
- ▲ Code Section 68.8.3 requires that certain roadway projects in transportation corridors that are not in attainment of CNEL standards must include design features to achieve the applicable CNEL standard.
- ▲ Strategies that reduce VMT (described in Section A, above) reduce traffic-generated noise.
- ▲ TRPA and local jurisdictions conduct project-level environmental review and only approve individual projects that can demonstrate compliance with TRPA's adopted thresholds.
- ▲ TRPA has adopted aircraft type limitations for the South Lake Tahoe Airport based on tested arrival and departure decibel levels. TRPA also established noise threshold standards for arrival and departures depending on time of day or night. The City of South Lake Tahoe has published noise abatement guidelines for all pilots located on the South Lake Tahoe Airport website.

Conclusion

For the reasons described above, and based on the Shoreline Plan EIS, Regional Plan Update Final EIS, the 2015 Threshold Evaluation Report, and Regional Plan Update Threshold Findings (TRPA 2012a), the Regional Plan, as amended by the Shoreline Plan, will continue to achieve and maintain the noise thresholds.

I. Recreation

This section summarizes the effects of implementing the Regional Plan, as amended by the Shoreline Plan, on the thresholds established for recreation. The following indicator reporting categories for recreation have been established by TRPA:

- ▲ Quality of Recreation Experience, and
- ▲ Fair Share Distribution of Recreation Capacity.

Effects of the Shoreline Plan on Recreation Thresholds

Quality of Recreation Experience and Access to Recreational Opportunities Threshold

The 2015 Threshold Evaluation Report indicates that the quality of recreation experience and access to recreational opportunities threshold is in attainment. Impact 8-1 in the Draft EIS analyzed effects of the Shoreline Plan related to the quality of recreation experience and Impacts 8-2 and 8-3 assessed effects related to access to recreational opportunities. Additional analysis of the effects of the Shoreline Plan on recreation is provided in the Final EIS in Master Response 2 – “Effects on Recreation”.

The Shoreline Plan includes expanded no-wake zones and density and location standards for moorings and piers that will help preserve scenic areas around the lake and maintain the quality of recreation experience. It will maintain space for lateral navigation by nonmotorized recreationists within the no-wake zone and reduce the potential for user conflicts. Most new shorezone facilities will be constructed throughout shoreline areas with existing development, which will not change the character of undeveloped shoreline recreation areas. The increase in motorized watercraft on the lake from implementation of the Shoreline Plan will not substantially change the quality of the recreation experience.

The Shoreline Plan will increase access and opportunities for motorized boating. Nonmotorized watercraft access will not be limited by implementation of the proposed Shoreline Plan, because more than half of the shoreline around Lake Tahoe is public land and nonmotorized craft do require access facilities. As part of the Shoreline Plan, TRPA and CSLC will adopt an MOU that details a process to coordinate review of applications for new and modified piers and other shorezone structures in California. The MOU will require design features to accommodate lateral access where it is otherwise legally allowed.

For these reasons, the Shoreline Plan will support continued maintenance of the recreation thresholds.

Fair Share Distribution of Recreation Capacity Threshold

The 2015 Threshold Evaluation Report found that the fair share distribution of recreation capacity threshold is in attainment. Impact 8-4 in the Draft EIS

analyzed the effects of the Shoreline Plan on fair-share distribution of recreation capacity. The existing distribution of land ownership in the shorezone is approximately 55 percent public and 45 percent private ownership. The Shoreline Plan will not change the proportion of land along the shoreline that is publicly owned. Buildout of new shorezone structures allowed with the plan will maintain approximately the same existing distribution of facilities under public and private ownership (see Table 8-5 on page 8-32 of the Draft EIS). At buildout of the Shoreline Plan, publicly-accessible shorezone structures will generate approximately 50 percent of all boat trips on the lake (see Table 8-6 on page 8-32 of the Draft EIS). The Shoreline Plan will contribute to the continued maintenance of the fair share distribution of recreation capacity threshold.

Recreation Threshold Gain from the Shoreline Plan

The Shoreline Plan will benefit the recreation thresholds through the following measures:

- ▲ Increases in public and private shorezone facilities on the lake that will increase recreation access.
- ▲ Increased enforcement of the no-wake zone to enhance the quality of recreation experience and reduce user conflicts.
- ▲ Increased education to motorized boat users, including education about the no-wake zone and boater safety. Education will occur at boat inspections, at rental concessions, and at popular access points.
- ▲ Expansion of the 600-foot no-wake zone to include all of Emerald Bay.
- ▲ Establish a 100-foot no-wake buffer around swimmers and nonmotorized watercraft.
- ▲ Establish a 200-foot no-wake zone around shoreline structures.
- ▲ Design standards to protect nonmotorized navigation, shoreline areas from scenic degradation, and shoreline preservation areas.
- ▲ Limit new motorized boat rental concessions to within existing marinas, preserving more beach space for nonmotorized recreation.
- ▲ Allow for storage racks for kayaks, paddleboards, and other nonmotorized watercraft.
- ▲ TRPA will provide a portion of the education and outreach funds collected through the proposed Shoreline Plan to support paddler access and education programs of the Lake Tahoe Water Trail.
- ▲ Recreation monitoring of visitor experience and user conflicts related to shorezone/lakezone activities through regular recreation user

satisfaction surveys and adaptive management based on the results of the surveys. The monitoring will begin in 2019 and be coordinated with the TRPA threshold evaluation program and the development of the sustainable recreation program.

Other Regional Planning Strategies that Contribute to Recreation Threshold Gain

The Recreation Element includes goals and policies that are implemented through the TRPA Code, the EIP, and the plans and programs of recreation providers. See pages 5-1 through 5-9 of the Regional Plan Goals and Policies. Goals and policies that contribute to recreation threshold attainment address access to dispersed recreation opportunities, the quality of the recreation experience, the fair share distribution of recreation capacity, and the development of recreation facilities. While there are many programs and policies that contribute to recreation threshold attainment, the major regional strategies include:

- ▲ Public agencies, including the Conservancy, NDSL, and USFS, have land acquisition programs to purchase suitable land and make it available to the public for dispersed recreation. Between 1996 and 2009, these agencies purchased over 3,000 acres of land (TRPA 2009).
- ▲ The EIP Recreation Program focuses on bringing additional acres of natural lands and miles of Lake Tahoe shoreline into public ownership and enable the implementation of new beach access, developed and retrofitted facilities, and recreational trails. Recent contributions to increasing the public shoreline included the addition of 191 linear feet of shoreline in California in 2014 and 425 linear feet of shoreline in Nevada in 2016 (Lake Tahoe Info 2018b).
- ▲ The 2012 Regional Plan amendments to the land use and conservation elements of the Goals and Policies, and revisions to the TRPA Code, directly support implementation of the recreation threshold policy statements. These amendments include revisions that encourage the creation of additional non-motorized trails (see TRPA Code Section 30.4.6.D.3), which is expected to accelerate the implementation of the comprehensive recreational trail system plan encompassed within the Regional Plan. The 2012 Regional Plan update also created an area plan framework that promotes community-level planning and includes requirements to connect developed areas to the regional bicycle and pedestrian trail network (see TRPA Code Chapter 13) that will increase access to recreation areas.
- ▲ TRPA and partner organizations administer numerous plans and programs that promote high-quality recreation on and around Lake Tahoe. These plans and programs address recreation opportunities, facilities, and access for the full range of recreation activities and users in the Region and include:

- ▲ Sustainable Recreation Collaborative, which is in the process of developing a Region-wide sustainable recreation strategic plan.
- ▲ Recreation in California state parks is guided by general plans for individual parks, the State Parks Department Operations Manual, and other regulations and guidance.
- ▲ Nevada State Parks manages land within the Lake Tahoe Nevada State Park. Management of recreation in this park is guided by a General Management Plan.
- ▲ The U.S. Forest Service-Lake Tahoe Basin Management Unit (LTBMU) Land Management Plan includes a recreation program strategy that provides for a range of recreation opportunities and considers changing trends and user needs while maintaining the natural setting (USFS 2016).
- ▲ The Lake Tahoe Water Trail (Water Trail) is a designated water route along the 72-mile shoreline that connects public launch/landing sites to help paddlers have a safe, responsible, and fun recreation experience while practicing good stewardship that protects the watershed. The Water Trail promotes access for non-motorized watercraft around the lake.
- ▲ Proposed projects are evaluated under an Initial Environmental Checklist (IEC). The IEC contains questions designed to identify whether a proposed project will require additional recreation related services or facilities, create additional demand for recreational facilities, or create additional recreation capacity (see TRPA Initial Environmental Checklist, Questions 14 and 19). Projects that will have a significant negative effect related to these topics are required to mitigate the impact and can only be approved if they will not cause this threshold standard to be degraded.
- ▲ California State Bill (SB) 630 (2013) provides funding to promote and enhance public access to the lake. Under SB 630 (2013), the Conservancy receives funding for, “Near-shore aquatic invasive species projects and projects to improve public access to sovereign land in Lake Tahoe, including planning and site improvement or reconstruction projects on public land, and land acquisitions from willing sellers.”

Conclusion

For the reasons described above, and based on the Shoreline Plan EIS, Regional Plan Update Final EIS, the 2015 Threshold Evaluation Report, and Regional Plan Update Threshold Findings (TRPA 2012a), the Regional Plan, as amended by the Shoreline Plan, will continue to maintain the recreation thresholds.

III. Conclusion

Based on the rationale described above, the Shoreline Plan EIS, the 2015 Threshold Evaluation, and the findings made on December 12, 2012 for the RPU, TRPA finds the Regional Plan and all of its elements, (as amended by the Shoreline Plan) achieves and maintains the thresholds. As described in more detail above, the Regional Plan will, over time, achieve and maintain the thresholds. The Shoreline Plan will maintain existing Regional Plan policies and programs and will result in no significant impacts to thresholds. The Shoreline Plan also includes specific strategies, programs, and resource protection measures that will accelerate attainment and maintenance of thresholds. Thus, the Regional Plan, as amended by the Shoreline Plan, will continue to achieve and maintain the thresholds.

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TABLE C-1: SHORELINE PLAN
TABLE OF SIGNIFICANT IMPACTS, MITIGATION MEASURES, AND COMPACT AND CODE FINDINGS

Environmental Impact (Level of Significance Before Mitigation)	Adopted Mitigation Measure(s)	Level of Significance after Mitigation	Findings of Fact
LTS = Less than significant	PS = Potentially significant S = Significant SU = Significant and unavoidable		
5 Fisheries and Aquatic Biological Resources			
<p>Impact 5-1: Increased risk of AIS introduction or spread (S) The increase in boat launches under the Shoreline Plan could increase the risk of AIS introductions, but this risk would not be substantial because the rigorous and effective prevention programs (including boat inspection, decontamination, outreach, and education) would continue. However, the increases in recreational boating would increase the risk that invasive macrophytes and Asian clams already in Lake Tahoe would be spread within the lake, creating new populations and increasing the abundance and distribution of AIS.</p>	<p>Mitigation Measure 5-1a: Require marina aquatic invasive species management plans TRPA will require that all marinas prepare and implement an AIS management plan within 3 years of adoption of the Shoreline Plan. The AIS management plans shall, at a minimum, (1) identify strategies to prevent the establishment of invasive macrophytes and Asian clams within the marina (e.g., improved water circulation), (2) include an AIS monitoring, early detection, and response program within the marina, which could be in partnership with resource management agencies and/or organizations, and (3) include a public education component. For marinas that already contain AIS, the AIS management plan shall identify measures to control or eradicate existing AIS and reduce the potential for spread.</p> <p>Mitigation Measure 5-1b: Promote the development of AIS-resistant boats TRPA will continue to regularly communicate with representatives of the watercraft industry, including trade associations and manufactures of watercraft or watercraft components, to promote the development and widespread commercial utilization of technologies that lower the potential for the spread of AIS. Innovations such as ballast tank filters, heated ballast water intakes in engines, and better draining ballast tanks are currently being developed by various manufacturers, but they are not yet commercially available on a widespread basis. Although many of these innovations are not yet commercially viable, they may be by the full buildout of the Shoreline Plan. TRPA will regularly coordinate with representatives of the watercraft industry to advocate for and demonstrate a commercial interest in the continued development and adoption of such technologies. TRPA will enact policies to encourage or require the use of such technologies when they become feasible.</p>	LTS	<p>Finding: Changes or alterations have been incorporated into the Shoreline Plan such that future projects would avoid or reduce the significant adverse environmental effects to a less-than-significant level.</p> <p>Rationale: Implementation of the Shoreline Plan would increase boat traffic at marinas, where AIS can be most dense, which would increase the risk that boats would spread AIS, creating new populations and increasing AIS abundance and distribution. With implementation of Mitigation Measure 5-1a marinas would implement measures to reduce the risk of new infestations and control or eradicate existing infestations. Mitigation Measure 5-1b would encourage the eventual widespread adoption of ballast tank filters, heated ballast water intakes in engines, better draining ballast tanks, and/or other technologies that reduce the potential for recreational boats to spread Asian clams or other AIS. This mitigation measure will reduce potential impacts to a less-than-significant level.</p>

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(Draft EIS, pp. 5-21 to 5-26)			
6 Hydrology and Water Quality			
<p>Impact 6-5: Interference with littoral processes from new or redeveloped shoreline structures</p> <p>(S) The Shoreline Plan would allow for the addition or expansion of piers that could disrupt existing wave and current circulation patterns near the shoreline. Waves and current motion are the primary agents of littoral drift, the process by which sediment is transported and deposited in the nearshore area. The Shoreline Plan would revise existing pier design standards in the TRPA Code (Section 84), but do not define design standards for public piers. Other structures, such as jetties, groins, breakwaters, and fences that could affect littoral processes, are generally not allowed. The Shoreline Plan may allow for other structures as part of a habitat restoration project or as part of a marina environmental improvement project.</p> <p>Previous analysis (TRPA 2004) demonstrated that significant impacts on littoral drift processes can occur from floating piers. Because the Shoreline Plan does not specify design standards for floating piers such that impacts on littoral drift would be completely avoided, and because the plan does not define the environmental analysis procedures for assessing littoral drift processes associated with public pier applications or allowable deviations for multiple-use pier applications that include floating pier sections, design standards in their current form could allow for piers that interfere with existing littoral drift processes.</p>	<p>Mitigation Measure 6-5a: Specify floating pier design standards TRPA will augment the design standards summarized in Table 2-5 in Chapter 2, "Project Description," to include the following standard for floating piers:</p> <ul style="list-style-type: none"> ▲ Floating pier sections rigidly moored to the lake bottom shall be prohibited. <p>Mitigation Measure 6-5b: Require littoral drift analyses and incorporate design recommendations for floating piers longer than 25 feet TRPA will require all new pier and pier extension applications that include floating pier sections longer than 25 feet submit a site-specific littoral drift and wave analysis. The analysis will assess the dimensions of the proposed floating pier section and the ability of waves to initiate and sustain the movement of sediment along the lake bottom under conditions of low lake level (6,223 feet), mid-lake level (6,226 feet), and high lake level (6,229 feet) Lake Tahoe Datum. The lake level condition with the greatest effect on littoral transport and backshore stability shall be used to design the floating pier section. Floating piers may only be approved if they are designed so that wave heights are not reduced by more than 50 percent and the floating pier section is no greater than 50 percent of the length of the site-specific design wavelength, and if the littoral drift analysis finds that the pier will not otherwise substantially disrupt littoral transport.</p>	LTS	<p>Finding: Changes or alterations have been incorporated into the Shoreline Plan such that future projects would avoid or reduce the significant adverse environmental effects to a less-than-significant level.</p> <p>Rationale: The Shoreline Plan does not specify design criteria for floating piers or limitations and does not define the environmental analysis procedures for assessing littoral drift processes associated with public pier applications; thus, existing littoral drift processes may not be maintained. Mitigation Measure 6-5a would prohibit piers with floating sections from being rigidly fixed to the lakebed. Mitigation Measure 6-5b would require that pier applications allowed to deviate from those design standards would need to demonstrate no effect on littoral drift along the shoreline through a defined and site-specific analysis. This mitigation measure will reduce potential impacts to a less-than-significant level.</p> <p style="text-align: right;">(Draft EIS, pp. 6-31 to 6-34)</p>
8 Recreation			
<p>Impact 8-1: Alter the quality of recreational experiences or create user conflicts</p>	<p>Mitigation Measure 8-1a: Maintain nonmotorized navigation within the no-wake zone</p>	LTS	<p>Finding: Changes or alterations have been incorporated into the Shoreline</p>

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<p>(PS) The Shoreline Plan would result in construction of new shoreline structures. The plan includes density and location standards for moorings and piers that would help preserve scenic areas around the lake and maintain the quality of recreation experience. The plan would not result in a substantial change to quality of recreation experience. Implementation of the Shoreline Plan could result in public piers extending beyond the 600-foot no-wake zone, which could create potential conflicts between nonmotorized recreation (i.e., nonmotorized watercraft and swimmers) and motorized watercraft.</p>	<p>TRPA will revise the pier design standards for piers that extend 600 feet or more from the high-water elevation to provide lateral nonmotorized recreation access within the 600-foot no-wake zone. Lateral nonmotorized recreation access within the 600-foot no-wake zone will be provided by the following:</p> <ul style="list-style-type: none"> ▲ The pier design standards would require public piers (for Alternatives 1, 3, and 4) and multiple-use piers (for Alternative 2) to accommodate lateral nonmotorized access by limiting the pier length to within the 600-foot no-wake zone and providing at least 10 feet between the end of the pier and the no-wake zone boundary to allow nonmotorized recreationists to stay within the no-wake zone. The applicant for a new multiple-use pier that extends to within 30 feet of the no-wake zone would also be required to install one or more navigational buoys to identify the location of the no-wake zone relative to the pier. Additional pier length could only be granted if necessary for public health and safety facilities or waterborne transit provided TRPA makes the following findings: <ul style="list-style-type: none"> ➤ The additional pier length is necessary to provide for public health and safety or public transit, and ➤ All feasible measures have been taken to minimize interference with nonmotorized navigation. 		<p>Plan such that future projects would avoid or reduce the significant adverse environmental effects to a less-than-significant level.</p> <p>Rationale: The Shoreline Plan would allow for public piers that could extend beyond the no-wake zone, which could affect navigation for nonmotorized activities creating conflicts between motorized watercraft and nonmotorized watercraft or swimmers. Mitigation Measure 8-1a requires that public piers, except for those that would serve public health and safety or public transit purposes, to limit their length to within the 600-foot no-wake zone and providing at least 10 feet between the end of the pier and the no-wake zone boundary to allow nonmotorized recreationists to stay within the no-wake zone. This mitigation measure will reduce potential impacts to a less-than-significant level. Additionally, as identified in Chapter 2, Revisions to the Proposed Shoreline Plan, of the Final EIS, the plan includes nonmotorized recreation elements, such as establishing a 100-foot no-wake zone around swimmers and nonmotorized craft on the lake; a 200-foot no-wake zone around all piers and other structures; TRPA would provide support for the Lake Tahoe Water Trail;</p>

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			<p>and TRPA would conduct regular recreation user satisfaction surveys. Each of these elements would further reduce risks of conflicts with motorized watercraft and support nonmotorized recreation access on the lake.</p> <p>(Draft EIS, pp. 8-11 to 8-24; Final EIS, Master Response 2 – Effects on Recreation.)</p>
9 Scenic Resources			
<p>Impact 9-1: Alter views of the shore from Lake Tahoe</p> <p>(S) The effects the Shoreline Plan on views from Lake Tahoe would vary based on the location, intensity, and other characteristics of future projects. In some scenarios under the Shoreline Plan, the scenic threshold ratings would increase due to required scenic improvements in the shoreland, visible mass reductions, and redevelopment of existing shorezone structures consistent with proposed design standards. In other scenarios, scenic quality could be unchanged or degraded due to additional visible mass associated with new buoys, redeveloped piers that are a contrasting color.</p>	<p>Mitigation 9-1a: Offset the visible mass of buoys</p> <p>TRPA will require that all new buoys offset the visible mass associated with the buoy and boat. The average visible mass of a buoy and boat is estimated at 83 square feet. Each new buoy will require removal or screening of a minimum of 83 square feet of existing mass visible from Lake Tahoe. The visible mass of a buoy will be offset through the payment buoy scenic mitigation fee that will be used to reduce visible mass, as described below.</p> <p>TRPA will assess an annual scenic mitigation fee on all buoys to offset the I visible mass of the buoy. TRPA will set a fee amount that is adequate to remove or visually screen 83 square feet of existing visible mass for each buoy. TRPA will use the fee to acquire and remove or screen existing visible mass visible from shoreline scenic travel units that are not in attainment of threshold standards. The funds will be dedicated to projects that TRPA determines will have the greatest benefit to scenic threshold standards and will be prioritized for use in the following order: 1) in the shorezone, 2) in the shoreland, and 3) to improve background views visible from Lake Tahoe.</p> <p>To identify specific scenic improvement projects that could be funded by the in-lieu fee, TRPA will update the Scenic Quality Improvement Program (SQIP) within one year of adoption of the Shoreline Plan. The update would, at a minimum, update those elements of the SQIP that identify scenic improvement opportunities within the eleven shoreline</p>	LTS	<p>Finding: Changes or alterations have been incorporated into the Shoreline Plan such that future projects would avoid or reduce the significant adverse environmental effects to a less-than-significant level.</p> <p>Rationale: The Shoreline Plan would allow for new buoys to be placed farther from the shore than under existing conditions and the visible mass of the buoys and associated boats would not be offset and projects adding buoys would not be required to implement scenic improvements through the visual magnitude system. Additionally, scenic threshold ratings associated with views of the shore from Lake Tahoe could occur due to additional visible mass associated with new buoys, and/or new or redeveloped piers that are a color that contrasts with the background view.</p>

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	<p>travel units that are not in attainment of scenic thresholds as of the 2015 Threshold Evaluation Report. Within each of these travel units, the SQIP will identify specific opportunities for scenic improvements that would increase the scenic threshold ratings. Scenic improvement opportunities could include improvements on private land, such as the acquisition, removal, or screening of private development; s well as opportunities on public land, such as the undergrounding of utilities, revegetation of road scars, screening or recoloring of infrastructure, or removal of structures on public land. The SQIP will consider opportunities for permanent or long-term scenic improvement. TRPA will consider the scenic improvement opportunities identified in the SQIP when authorizing the expenditure of scenic mitigation funds.</p> <p>Funds could be used to implement projects directly or through grants, contracts, or other agreements with partner organizations. TRPA could also authorize mitigation funds for projects that permanently reduce the visual magnitude of shoreland development when the project contributes to the attainment of scenic thresholds and is not otherwise required. Visible mass mitigation projects that could be funded by the in-lieu fee include, but are not limited to:</p> <ul style="list-style-type: none"> ▲ scenic improvement projects identified in the the most recent version of the SQIP; ▲ lakefront recreation projects with scenic improvements such as replacing dilapidated structures or relocating structures (public gathering areas and waterfront public access scenic improvements); ▲ scenic improvement of existing rip rap and retaining walls along visible roadway cuts (e.g., recoloring of light-colored rip rap); ▲ permanent removal of existing shorezone and shoreland structures; ▲ permanent screening of roadside parking areas, roadways, and infrastructure through the planting of native vegetation and creation of vegetated berms; ▲ undergrounding of utility lines that are visible from the lake; and 		<p>Mitigation Measure 9-1a will require the payment of a mitigation fee that will fund the removal or visual screening of existing visible mass in scenic travel units that are not in attainment to offset the additional visible mass that could result from new buoys. The funds will be dedicated to projects that TRPA determines will have the greatest benefit to scenic threshold standards. Mitigation Measure 9-1b will require TRPA to modify the proposed design standards to regulate the color of piers and these standards will be enforced for all new or expanded piers. After implementation of the required mitigation measures, future projects under the Shoreline Plan would reduce visible mass and prevent new structures from degrading scenic threshold ratings. This mitigation measure will reduce potential impacts to a less-than-significant level.</p> <p>(Draft EIS, pp. 9-19 to 9-52; Final EIS, p. 2-5, see also responses to comments 012-18 and 012-36 .)</p>

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	<p>▲ improving existing shoreland structures and deed restricting those parcels such that visual magnitude of existing development is permanently reduced.</p> <p>Mitigation 9-1b: Establish color standards for piers TRPA will modify the proposed design standards to regulate the color of piers. These standards will be enforced for all new or expanded piers. The standards will require that piers be a matte medium to dark gray. The standards will also allow TRPA to require alternate colors that TRPA determines would better blend into the background view of the project site.</p>		
<p>Impact 9-2: Alter views of Lake Tahoe from the shore (S) The scenic effects on views from the shore would vary based on the location, intensity, and other characteristics of future projects. In some scenarios under the Shoreline Plan, the scenic threshold ratings would increase due to required scenic improvements in the shoreland, visible mass reductions, and redevelopment of existing shorezone structures consistent with design standards. In other scenarios, scenic quality would not substantially change, or the scenic threshold ratings could be reduced. This potential reduction in scenic threshold ratings would be due to additional visible mass associated with new buoys.</p>	<p>Mitigation 9-2a: Implement Mitigation Measure 9-1a to offset the visible mass of buoys TRPA will implement Mitigation Measure 9-1a, "Offset the visible mass of buoys," as described above.</p>	LTS	<p>Finding: Changes or alterations have been incorporated into the Shoreline Plan such that future projects would avoid or reduce the significant adverse environmental effects to a less-than-significant level.</p> <p>Rationale: The Shoreline Plan would allow for new buoys to be placed farther from the shore than under existing conditions and the visible mass of the buoys and associated boats would not be offset and projects adding buoys would not be required to implement scenic improvements through the visual magnitude system. Additionally, scenic threshold ratings associated with views of the shore from Lake Tahoe could occur due to additional visible mass associated with new buoys. Mitigation Measure 9-2a will require the removal or visual screening of existing visible mass near the project site or in scenic travel units that are not in</p>

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			<p>attainment to offset the additional visible mass that could result from new buoys. Alternatively, buoy applicants will have the option to pay an in-lieu fee to offset the additional visible mass of the buoy. The funds will be dedicated to projects that TRPA determines will have the greatest benefit to scenic threshold standards. After implementation of the required mitigation measure, future projects under the Shoreline Plan would reduce visible mass and prevent new structures from degrading scenic threshold ratings.</p> <p>This mitigation measure will reduce potential impacts to a less-than-significant level.</p> <p>(Draft EIS, pp. 9-53 to 9-69; Final EIS, response to comment A1-22.)</p>
10 Air Quality			
<p>Impact 10-2: Short-term construction emissions of ROG, NO_x, PM₁₀, and PM_{2.5} (PS) Implementation of the Shoreline Plan would result in the construction of new piers, boat ramps, marinas, and/or boat houses. Given the number of new facilities that could be developed and the limited construction season in the Tahoe Region (i.e., May 1 to October 15), it is possible that a substantial amount of construction activity could occur at one time. Thus, equipment exhaust and fugitive dust emissions could violate or contribute substantially to an existing or projected air quality violation, especially considering the nonattainment status of the LTAB with respect to the CAAQS and TRPA numeric threshold standards for ozone and PM₁₀.</p>	<p>Mitigation Measure 10-2: Add best construction practices for emissions to the standard conditions of approval for shoreline projects TRPA will revise the Standard Conditions of Approval for Shorezone Projects (TRPA Permit Attachment S) to require that minimum construction emission reduction best practices be implemented for all projects within the shorezone. The Standard Conditions of Approval for Shorezone Projects will be amended to add the following best construction practices:</p> <ul style="list-style-type: none"> ▲ Fugitive dust shall not exceed 40 percent opacity and not go beyond the property boundary at any time during project construction. ▲ No open burning of removed vegetation shall occur during infrastructure improvements. 	LTS	<p>Finding: Changes or alterations have been incorporated into the Shoreline Plan such that future projects would avoid or reduce the significant adverse environmental effects to a less-than-significant level.</p> <p>Rationale: Emissions associated with the construction of future individual development projects under the Shoreline Plan would have the potential to exceed Placer County Air Pollution Control District (PCAPCD), El Dorado County Air Quality Management District</p>

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	<ul style="list-style-type: none"> ▲ Idling time for all diesel-powered equipment shall not exceed 5 minutes. ▲ Water shall be applied as needed to prevent dust impacts from extending off-site. Operational water truck(s) shall be on-site, as required, to control fugitive dust. Construction vehicles leaving the site shall be cleaned to prevent dust, silt, mud, and dirt from being released or tracked off-site. ▲ Existing power sources or clean-fuel generators rather than temporary diesel power generators shall be used wherever feasible. 		<p>(EDCAQMD), and Washoe County Health District regulations and TRPA numeric threshold standards. These projects could potentially violate or contribute substantially to the nonattainment status of the LTAB with respect to the CAAQS for ozone and PM₁₀. Mitigation Measures 10-2 would require that the Standard Conditions of Approval for Shorezone Projects be revised such that projects under the Shoreline Plan incorporate measures to reduce short-term construction-generated emissions of NO_x, PM₁₀, and PM_{2.5} to levels below PCAPCD and EDCAQMD threshold standards. This mitigation measure will reduce potential impacts to a less-than-significant level.</p> <p>(Draft EIS, pp. 10-20 to 10-22)</p>
11 Greenhouse Gas Emissions and Climate Change			
<p>Impact 11-1: Greenhouse gas emissions (PS) Implementation of the Shoreline Plan would result in GHG emissions associated with the construction and demolition of boating facilities and on-road motor vehicle trips to and from new boating facilities. Implementation of the Shoreline Plan would also result in an increase in GHG-emitting boating activity. It is not feasible to know whether the fleet of motorized boats on Lake Tahoe will become more GHG efficient and, if it does, whether the improvement in GHG efficiency would be enough to offset the GHGs associated with construction activity, the increase in on-road motor vehicle travel, and the projected increase in boating activity.</p> <p>The development and implementation of a GHG Reduction Policy, as required by Mitigation Measure 11-1, would reduce GHG emissions,</p>	<p>Mitigation Measure 11-1: Develop and implement a GHG reduction policy Within 12 months of adoption of the Shoreline Plan, TRPA will coordinate the implementation of a GHG Emission Reduction Policy through TRPA-approved plans, project permitting, or projects/programs developed in coordination with local or other governments addressing Best Construction Practices and ongoing operational efficiencies. Until that time, TRPA will continue its existing practice to require measures developed on a project-by-project basis. The policy will require implementation of measures for the reduction of GHG emissions generated by demolition and construction activity in the shorezone and in associated upland areas, by on-road motor vehicles trips directly associated with the operation of boating facilities, and by ongoing</p>	SU	<p>Finding: Specific considerations, such as economic, social, or technical, make infeasible the mitigation measure or project alternatives discussed in the environmental impact statement (EIS) for the project.</p> <p>Rationale: Boating activity, construction-related emissions, and associated on-road mobile-source GHG emissions at buildout of the Shoreline Plan has the potential to result in a substantial contribution to GHG emissions. Implementation of Mitigation Measure</p>

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<p>but the extent of this reduction depends on participation rates, available funding, and available technology.</p>	<p>operation of recreational watercraft. Where local ordinances already require GHG emission reductions consistent with the policy, no further action is necessary. Where local government ordinances do not adequately address GHG reduction practices, those practices will be implemented through local government and/or TRPA permitting activities or implementation program. Such measures may include, but are not limited to, the following:</p> <p>Minimize Construction-Related GHG Emissions</p> <ul style="list-style-type: none"> ▲ All diesel-powered construction equipment shall have engines that comply with Tier 4 emission standards or better. ▲ Require all construction contractors to use renewable diesel (RD) fuel for all diesel-powered construction equipment (off-road land- and water-based). Any RD product that is considered for use by the construction contractors shall comply with California's Low Carbon Fuel Standards and be certified by the California Air Resources Board Executive Officer. RD fuel must also meet the following criteria: <ul style="list-style-type: none"> ➤ Be hydrogenation-derived (reaction with hydrogen at high temperatures) from 100 percent biomass material (i.e., nonpetroleum sources), such as animal fats and vegetables; ➤ Contain no fatty acids or functionalized fatty acid esters; and ➤ Have a chemical structure that is identical to petroleum-based diesel which ensures RD will be compatible with all existing diesel engines; it must comply with American Society for Testing and Materials (ASTM) D975 requirements for diesel fuels. ▲ Use electric powered equipment instead of fossil fuel-based generators. ▲ Purchase mitigation credits from the Climate Action Reserve's GHG Mitigation Credit Program to offset construction-generated GHG emissions. <p>Minimize GHG Emissions Associated with On-Road Vehicle to Watercraft Facilities</p>		<p>11-1 would reduce some of the anticipated future GHG emissions at buildout. Some of these measures would also be consistent with those identified in the Sustainability Action Plan (Lake Tahoe Sustainable Communities Program 2013). However, the effectiveness of these measures would depend on participation rates, available funding, and available technology. Given the uncertainty about the magnitude of the increase in GHG emissions from projects accommodated by the Shoreline Plan and the uncertain effect of these mitigation measures, it is possible that the Shoreline Plan could have a considerable contribution to the cumulative impact of GHG emissions and climate change.</p> <p>The Governing Board finds that legal, economic, social, and technical considerations make further mitigation of this impact infeasible. Therefore, this impact is considered significant and unavoidable.</p> <p>The Governing Board further finds that specific considerations make infeasible, any reasonable alternatives that would both meet the objectives of the Shoreline Plan and reduce the significant and unavoidable impact on GHG emissions and climate change. To meet TRPA requirements for the consideration of alternatives, the Draft EIS evaluated the potential impacts of</p>

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	<ul style="list-style-type: none"> ▲ Provide charging stations for electric vehicles and bike lockers at parking lots that serve public piers and marinas. ▲ Minimize GHG Emissions Generated by Recreational Watercraft ▲ Require or incentivize businesses that rent motorized watercraft to convert their rental fleet to watercraft with electric engines. ▲ Require or incentivize charging stations at marinas and public piers for electric-motor watercraft. ▲ Require or incentivize the installation of charging stations for electric-motor watercraft at private piers, boat houses, and boat lifts. ▲ Require solar panels on all marina buildings. <p>This measure will apply to new construction occurring under the Shoreline Plan. TRPA will also initiate a funding program to apply these measures to existing facilities within the Tahoe Basin.</p>		<p>four Shoreline Plan alternatives, including the no project alternative (Alternative 2). No feasible alternatives, in addition to those proposed in the Draft EIS, have been identified that would attain the objectives of the Shoreline Plan and reduce the significant and unavoidable impact on GHG emissions and climate change. The Final Shoreline Plan and mitigation measures in the Final EIS reduce the GHG emissions and climate change impact to the extent feasible. Thus, the Governing Board finds that all reasonable alternatives were reviewed, analyzed, and discussed in the EIS review process.</p> <p>(Draft EIS, pp. 10-20 to 10-22; also see Master Response 4 – Watercraft Emissions and response to comment A1-26, O2-20, O2-21, and O10-15)</p>
12 Noise			
<p>Impact 12-2: Construction vibration impacts (S) Construction activities would occur under the Shoreline Plan. Construction activities associated with new shorezone structures, including new piers, pier modifications, marinas, and new boat ramps would generate varying levels of vibration. Pile driving would be required for pier construction/modification and marina construction, resulting in vibration levels that could potentially damage existing structures if located within 55 feet. In accordance with TRPA standard construction practices, all construction activity would take place during the day, minimizing the potential for disturbance during noise-sensitive evening and nighttime hours. However, because specific</p>	<p>Mitigation Measure 12-2: Vibration reduction measures To address potential vibration impacts associated with shorezone projects that involve pile driving activity, TRPA shall revise TRPA Permit Attachment S, “Standard Conditions of Approval for Shorezone Projects,” to incorporate the following vibration reduction measures:</p> <ul style="list-style-type: none"> ▲ All construction equipment, including vibration-inducing impact equipment, on construction sites shall be operated as far away from vibration-sensitive uses as reasonably possible. ▲ Earthmoving and ground-disturbing operations shall be phased so as not to occur simultaneously in areas close to sensitive uses, to the extent feasible. The total vibration level 	LTS	<p>Finding: Changes or alterations have been incorporated into the Shoreline Plan such that future projects would avoid or reduce the significant adverse environmental effects to a less-than-significant level.</p> <p>Rationale: Implementation of the Shoreline Plan might result in some new piers to be located within 55 feet of existing structures, potentially exposing them to ground vibration levels</p>

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<p>locations of pile driving activity is unknown, there is a potential that existing structures could be exposed to excessive vibration levels that could result in structural damage.</p>	<p>produced could be significantly less if each vibration source is operated at separate times.</p> <ul style="list-style-type: none"> ▲ To prevent structural damage, minimum setback requirements for different types of ground vibration-producing activities (e.g., pile driving) for the purpose of preventing damage to nearby structures shall be established based on the proposed pile driving activities and locations, once determined. Factors to be considered include the specific nature of the vibration producing activity (e.g., type and duration of pile driving), local soil conditions, and the fragility/resiliency of the nearby structures. Established setback requirements (i.e., 55 feet) can be breached if a project-specific, site specific analysis is conducted by a qualified geotechnical engineer or ground vibration specialist that indicates that no structural damage would occur at nearby buildings or structures or provides further recommendations (e.g., alternative pile driving methods, site monitoring requirements) to avoid damaging nearby structures. 		<p>exceeding the recommended level of 0.2 in/sec PPV with respect to structural damage.</p> <p>Mitigation Measure 12-2 would reduce vibration exposure at nearby receptors by locating equipment as far from receptors as possible and by phasing operations for shorezone projects that are close enough to each other to combine to produce greater vibration levels. If pile driving would be required near existing structures or sensitive receptors, a site-specific analysis for projects that require pile driving would be required to determine appropriate measures that would prevent structural damage.</p> <p>This mitigation measure will reduce potential impacts to a less-than-significant level.</p> <p>(Draft EIS, pp. 12-13 to 12-15)</p>
14 Terrestrial Biological Resources (Wildlife and Vegetation)			
<p>Impact 14-1: Disturbances to osprey, bald eagle, and waterfowl from construction and recreational uses</p> <p>(S) Osprey, bald eagle, and waterfowl are designated by TRPA as special interest species and use the shorezone and adjacent locations for breeding and foraging. Potential effects of the Shoreline Plan on osprey and bald eagle could include construction-related disturbances to nesting activities from new piers and boat ramps, long-term increased disturbance to osprey and bald eagle and suitable habitat from boating and other recreational uses, and habitat degradation within TRPA-designated osprey and bald eagle disturbance zones. Although suitable nesting habitat for waterfowl is</p>	<p>Mitigation Measure 14-1a: Avoid construction disturbances to nesting osprey and bald eagle, install interpretive signage, and prepare and implement habitat enhancement plans or other compensatory measures for unavoidable activities within TRPA-designated disturbance zones</p> <ul style="list-style-type: none"> ▲ Surveys for nesting osprey and bald eagle will be conducted prior to construction of new shorezone facilities, to identify active nests that could be disturbed during construction. No construction activities will occur within 0.25 mile of active osprey nests and 0.5 mile of bald eagle nests during the breeding season (approximately April to August), unless surveys confirm that the birds are not nesting. A qualified 	LTS	<p>Finding: Changes or alterations have been incorporated into the Shoreline Plan such that future projects would avoid or reduce the significant adverse environmental effects to a less-than-significant level.</p> <p>Rationale: The Shoreline Plan could allow for construction and operation of new shorezone structures within osprey or bald eagle disturbance zones that would degrade habitat quality, without</p>

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<p>limited in the shorezone where new projects would be permitted (e.g., outside of TRPA-designated waterfowl population sites), construction-related activities that may occur within suitable habitat could disturb nesting attempts of waterfowl.</p>	<p>biologist can amend the start and end dates of this limited operating period (LOP) with concurrence from appropriate agencies if it can be determined that breeding has not started or that fledglings have left the nest. Additionally, with concurrence from appropriate agencies, the LOP could be waived in locations where construction disturbance is not expected to increase ambient levels or disturbance to an active nest through presence of visual screening or other factors.</p> <ul style="list-style-type: none"> ▲ During project-specific planning, design, and environmental review of new shorezone facilities, avoid siting projects within TRPA-designated disturbance zones for osprey and bald eagle, to the extent feasible. ▲ For projects and uses that may result in unavoidable increased human intrusion into the terrestrial/upland portions of TRPA osprey or bald eagle disturbance zones, signage that describes the sensitivity of the area and discourages users to leave established trails or access routes or otherwise disturb nesting osprey or bald eagle will be designed and installed. ▲ For projects that could cause unavoidable long-term degradation of habitat within TRPA osprey or bald eagle disturbance zones, coordination with TRPA will occur to identify and implement appropriate compensatory measures that are effective and feasible for achieving TRPA's nondegradation standard for disturbance zones. <p>Potential approaches to mitigating adverse effects and enhancing habitat within disturbance zones include preparation and implementation of a habitat enhancement and management plan that includes objectives, measures, techniques, performance standards, and adaptive management to enhance osprey habitat. Habitat enhancement would be implemented within the affected TRPA osprey or bald eagle disturbance zones and/or other osprey or bald eagle disturbance zones in the Tahoe Basin where enhancement opportunities and benefits to the regional osprey or eagle population</p>		<p>appropriate habitat enhancement objectives or mitigation, would conflict with the nondegradation standard for osprey or bald eagle disturbance zones. Additionally, it is possible that if waterfowl use any future shorezone areas for nesting, disturbances associated with construction and operation of new shorezone structures could result in the loss of active nests and injury or mortality to individuals. Mitigation measure 14-1a would require conducting preconstruction surveys for nesting osprey and bald eagles and implementing an appropriate exclusionary buffer and limited operating period to avoid or minimize effects of construction-related disturbance on nesting activity and breeding success. Mitigation measure 14-1a also requires avoiding placement of new shorezone structures within TRPA-designated disturbance zones, to the extent feasible. For projects that may result in unavoidable increased human intrusion into upland portions of TRPA osprey and bald eagle disturbance zones, applicants will be required to coordinate with TRPA to identify and implement appropriate compensatory measures to achieve TRPA's nondegradation standard for disturbance zones. Mitigation Measure 14-1b will require avoidance measures to avoid disturbance of any active nests</p>

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	<p>could be maximized. Coordination with TRPA would occur to determine whether more focused measures to achieve habitat enhancement as part of the project could be implemented, or whether the current project design may benefit osprey or bald eagle habitat, in lieu of a formal habitat enhancement and management plan.</p> <p>Mitigation Measure 14-1b: Conduct preconstruction surveys for waterfowl and implement a limited operating period, if necessary For construction activities that would occur in suitable habitat during the nesting season (generally April 1–August 31, depending on snowpack and other seasonal conditions), a qualified wildlife biologist shall conduct focused surveys for waterfowl nests no more than 14 days before construction activities are initiated each construction season. If an active nest is located during the preconstruction surveys, the biologist shall notify TRPA. If necessary, modifications to the project design to avoid removal of occupied habitat while still achieving project objectives shall be evaluated and implemented to the extent feasible. If avoidance is not feasible or conflicts with project objectives, a limited operating period shall apply to avoid disturbances during the sensitive nesting season. Construction shall be prohibited within a minimum of 500 feet (or at a distance directed by the appropriate regulatory agency) of the nest to avoid disturbance until the nest is no longer active. These recommended buffer areas may be reduced through consultation with TRPA.</p>		<p>in order to avoid the loss of individuals and nests of waterfowl species. This mitigation measure will reduce potential impacts to a less-than-significant level.</p> <p>(Draft EIS, pp. 14-16 to 14-23; also see responses to comments A3-12 and A3-13)</p>
<p>Impact 14-2: Disturbance or loss of Tahoe yellow cress (S) Tahoe yellow cress (TYC) is a sensitive plant species found only on the sandy beaches of Lake Tahoe. This species is designated as a sensitive plant and threshold indicator species by TRPA, and is state-listed as critically endangered and endangered by the states of Nevada and California, respectively. The Shoreline Plan would result in construction and operation of new shoreline structures within beach habitats. Depending on the specific locations and size of individual projects in relation to TYC occurrences and suitable habitat, construction-related activities that may occur within or adjacent to beach habitat occupied by TYC could result in the direct removal of</p>	<p>Mitigation Measure 14-2: Conduct preconstruction surveys, avoid potential construction impacts, and avoid potential recreation impacts to Tahoe yellow cress plants, and compensate for unavoidable loss of Tahoe yellow cress.</p> <p>To avoid potential adverse effects on TYC plants resulting from construction activities and potential increased use of beaches that support TYC, the following actions shall be implemented:</p> <p>(A) During project-specific planning, design, and environmental review of new shoreline facilities, avoid siting projects within areas known to support TYC occurrences, to the extent feasible. Project</p>	<p>LTS</p>	<p>Finding: Changes or alterations have been incorporated into the Shoreline Plan such that future projects would avoid or reduce the significant adverse environmental effects to a less-than-significant level.</p> <p>Rationale: Implementation of future projects under the Shoreline Plan will include construction activity in the shoreline that could result in the direct removal of TYC plants or other</p>

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<p>TYC plants, or other disturbances through inadvertent trampling, soil disturbance, and dust deposition. Over the long term, the additional recreation capacity for motorized watercraft, nonmotorized watercraft, anglers, swimmers, and beachgoers could increase the frequency of recreationists within occupied TYC habitat, which could result in additional trampling, degradation, or loss of existing TYC, and adversely affect current or future TYC habitat suitability. Subsection 61.3.6 of the TRPA Code states that “all projects or activities that are likely to harm, destroy, or otherwise jeopardize sensitive plants or their habitat, shall fully mitigate their significant adverse effects. Those projects or activities that cannot fully mitigate their significant adverse effects are prohibited.” Additionally, in California, because TYC is listed as endangered under the California Endangered Species Act (CESA), any take of TYC would require authorization by California Department of Fish and Wildlife (CDFW) through a California Fish and Game Code Section 2081 incidental take permit.</p>	<p>proponents shall follow the project review guidelines in Appendix H of the 2015 TYC Conservation Strategy (Stanton et al. 2015).</p> <p>(B) For any projects that could affect TYC, a qualified biologist familiar with the vegetation of the Tahoe Basin and identification of TYC shall conduct a focused preconstruction survey for TYC in all beach habitat where construction-related disturbance could occur in the vicinity of TYC populations during that year. Surveys shall be conducted between June 15 and September 30, when TYC is clearly identifiable, and shall follow the survey protocol provided in Appendix D and project review guidelines in Appendix H of the 2015 TYC Conservation Strategy. Surveys shall be completed for each year that construction activities could occur in beach habitat. If no TYC stems are found during the survey, the results of the survey shall be documented in a letter report to TRPA and the TYC AMWG that shall become part of the project environmental record, and no further actions shall be required.</p> <p>(C) If TYC stems are documented during the survey in areas potentially disturbed by construction activities, the stems shall be clearly identified in the field and protected from impacts associated with construction activities. Protective measures shall include installing high-visibility fencing around known stem locations during construction. No construction-related activities shall be allowed in areas fenced for avoidance, and construction personnel shall be briefed about the presence of the stems and the need to avoid effects on the stems.</p> <p>(D) To protect TYC plants from potential long-term increased beach use and disturbance as an indirect result of increased recreation activity in the shorezone, protective fencing and educational signage about the need to avoid these areas shall be installed around all TYC clusters. In addition to beaches occupied by TYC where new shorezone facilities would be constructed and operated, other beach areas that support TYC that are likely to receive increased recreation uses as a result of the projects shall be identified and subject to these measures.</p> <p>(E) Long-term fencing and signage will be periodically monitored and maintained, as necessary, to ensure that they remain effective and in good working condition. Also, because locations and</p>		<p>disturbances. Additional recreation capacity could increase the frequency of recreationists within occupied TYC habitat that could result in additional trampling, degradation, or loss of existing TYC, and adversely affect current or future TYC habitat suitability. Mitigation Measure 14-2 will require identification and avoidance of TYC plants present in areas of potential disturbance by construction activities. To protect TYC plants from potential long-term increased beach use and disturbance as an indirect result of increased recreation activity in the shorezone, protective fencing and educational signage would be installed around all TYC clusters on beaches that may be affected. This mitigation measure will reduce potential impacts to a less-than-significant level.</p> <p>(Draft EIS, pp. 14-23 to 14-25; Final EIS, responses to comments A2-7, A5-3, 06-4, 012-41, and I59-1 through I59-4.)</p>

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	<p>concentrations of TYC could shift over time, the locations and configurations of fencing relative to TYC distribution shall be evaluated periodically. If necessary, fencing shall be moved or added in response to changes in TYC distribution to ensure that TYC plants are protected over time. The locations of TYC plants and shifts in their locations relative to fencing can be determined by surveys as part of the ongoing AMWG TYC monitoring program. The installation and maintenance of long-term protective fencing and signage will be designed to not interfere with necessary operations and maintenance activities at facilities.</p> <p>(F) If complete avoidance of TYC is not feasible, then adaptive management or compensatory actions for any significant project-related loss of TYC shall be identified, designed, and implemented in coordination with the TYC AMWG and TRPA. Potential compensatory actions could include or require seed collection, nursery/greenhouse propagation and outplanting of container-grown TYC, or translocation of naturally occurring TYC either on-site or at a suitable off-site location, as discussed in the 2015 TYC Conservation Strategy.</p> <p>(G) If a project on the California side of the Lake Tahoe shorezone may result in the loss of TYC, consultation with California Department of Fish and Wildlife would be required to ensure compliance with the California Endangered Species Act, and obtaining an incidental take permit pursuant to California Fish and Game Code Section 2081 may be required prior to project implementation. If a project on the Nevada side of Lake Tahoe shorezone may result in the loss of TYC, a special permit from the Nevada State Forester Firewarden would be required to ensure compliance with the federal Endangered Species Act. Mitigation Measure 14-2: Conduct preconstruction surveys, avoid potential construction impacts, and avoid potential recreation impacts to Tahoe yellow cress plants.</p>		
15 Public Health and Safety			
Impact 15-1: Increase in watercraft accidents due to increased boating and navigational hazards	Mitigation Measure 15-1a: Maintain nonmotorized navigation within the no-wake zone	LTS	Finding: Changes or alterations have been incorporated into the Shoreline Plan such that future projects would

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<p>(PS) Implementation of the Shoreline Plan would increase the number of annual and peak day boat trips on the lake. Increased levels of boating activity would add to the factors that contribute to boating accidents, such as more watercraft, higher boating density at popular shoreline areas and lake access points, and greater potential for conflicts between motorized and nonmotorized recreation. While the additional boating activity resulting from the Shoreline Plan would aggravate the factors that contribute to boating accidents, the 600-foot no-wake zone, improved public boating safety education programs, and compliance with California and Nevada boating safety laws would reduce the risks and associated impacts.</p> <p>Implementation of any of the Shoreline Plan could lead to public piers extending beyond the 600-foot no-wake zone, which could create navigational hazards and conflicts between motorized and nonmotorized watercraft and swimmers.</p>	<p>TRPA will implement Mitigation Measures 8-1a and 8-1c as described in Chapter 8, "Recreation." These mitigation measures require that TRPA revise the pier design standards, such that the length of new public piers shall be limited to within the 600-foot no-wake zone and provide at least 10 feet between the end of the pier and the no-wake zone boundary, to provide lateral nonmotorized recreation access within the 600-foot no-wake zone and provide for a 200-foot buffer between motorized watercraft in motion and nonmotorized recreationists in areas outside of no-wake zones.</p>		<p>avoid or reduce the significant adverse environmental effects to a less-than-significant level.</p> <p>Rationale: The Shoreline Plan would allow public piers to extend beyond the 600-foot no-wake zone, which could cause nonmotorized watercraft and swimmers to move outside of the no-wake zone as they pass the pier if the pier does not provide sufficient space for them to pass underneath. Motorized watercraft traveling at higher speeds outside of the no-wake zone may have more trouble seeing nonmotorized watercraft and swimmers, creating a greater potential for accidents. Mitigation Measure 15-1a requires that public piers limit their length to within the 600-foot no-wake zone and provide at least 200 feet between the end of the pier and the no-wake zone boundary to allow nonmotorized recreationists to stay within the no-wake zone. This mitigation measure will reduce potential impacts to a less-than-significant level. Additionally, as identified in Chapter 2, Revisions to the Proposed Shoreline Plan, of the Final EIS the plan includes nonmotorized recreation elements, such as establishing a 100-foot no-wake zone around swimmers and nonmotorized craft on the lake; a 200-foot no-wake zone around all piers and</p>

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			<p>other structures; and TRPA would conduct regular recreation user satisfaction surveys. Each of these elements would further reduce risks of accidents or conflicts between motorized watercraft and nonmotorized recreationists.</p> <p>(Draft EIS, pp. 15-16 to 15-20; Final EIS, Master Response 2 – Effects on Recreation and responses to comments 02-9 and 010-9)</p>
16 Cultural Resources			
<p>Impact 16-1: Cause the alteration of, or adversely affect a historical site, structure, object, or building (PS) Implementation of the Shoreline Plan would result in development on properties that could contain known or unknown historic resources, are associated with historically-significant events or individuals, or result in adverse physical or aesthetic effects to a significant historical site, structure, object, or building. Because the Shoreline Plan would result in some new construction, it has the potential to disturb, disrupt, or destroy historic resources through implementation.</p>	<p>Mitigation 16-1: Avoid potential effects on historic resources Once the exact location of the new piers, boat ramps, and any other land-based development has been determined and before commencement of earth-disturbing activities for construction, applicants shall identify and evaluate all historic-age (over 45-years in age) buildings and structures that are proposed to be removed and/or modified as part of a historic determination application with TRPA or applicable local jurisdiction. This may include preparation of an historic resource assessment and evaluation of resources to determine their eligibility for recognition under state, federal, or local criteria. If required, the assessment shall be prepared by an architectural historian, or historical architect meeting the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, Professional Qualification Standards. If resources are eligible for inclusion in the NRHP, CRHR, or a local register are identified, an assessment of impacts on these resources shall be included in the report, as well as detailed mitigation measures to avoid impacts.</p>	LTS	<p>Finding: Changes or alterations have been incorporated into the Shoreline Plan such that future projects would avoid or reduce the significant adverse environmental effects to a less-than-significant level.</p> <p>Rationale: Implementation of the Shoreline Plan would allow development of new structures in locations that are not yet specified, and site-specific surveys were not conducted. The demolition, alteration, or disturbance of existing sites, buildings, and structures that are designated historic resources, eligible for listing as historic resources, or that have not yet been evaluated, could result in the change in its historical significance. Mitigation Measure 16-1 would reduce potentially significant impacts to historic resources because</p>

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			<p>mitigation would avoid, move, record, or otherwise treat a discovered resource appropriately, in accordance with pertinent laws and regulations. This mitigation measure will reduce potential impacts to a less-than-significant level.</p> <p>(Draft EIS, pp. 16-11 to 16-13; also see responses to comments O12-14 through O12-47)</p>
<p>Impact 16-2: Cause the alteration of, or adversely affect an archaeological resource (PS) Implementation of the Shoreline Plan would result in development that could take place on properties that contain, be associated with, or result in adverse effects to known or unknown archaeological resources. Because the Shoreline Plan would result in some new construction over the planning period, it has the potential to disturb, disrupt, or destroy archaeological resources through implementation of specific projects.</p>	<p>Mitigation 16-2: Avoid potential effects on archaeological resources Once the exact location of the new piers, boat ramps, dredging, or any other ground-disturbing development (excluding buoys) has been determined and before commencement of earth-disturbing activities for construction, applicants shall retain a qualified archaeologist to conduct archaeological surveys of the site as part of a historic determination application with TRPA or applicable local jurisdiction. To ensure that new or expanded facilities and uses do not adversely affect potentially buried archaeological deposits, an underwater archaeological survey shall also be conducted to identify, evaluate, and protect significant submerged cultural resources prior to activities that would disturb the lakebed.</p> <p>The applicant shall follow recommendations identified in the survey, which may include activities such as subsurface testing, designing, and implementing a Worker Environmental Awareness Program, construction monitoring by a qualified archaeologist, avoidance of sites, or preservation in place.</p> <p>All projects shall include the following requirements as a condition of approval: If evidence of any prehistoric or historic-era subsurface archaeological features or deposits are discovered during construction-related earth-moving activities (e.g., ceramic shard, trash scatters, lithic scatters), all ground-disturbing activity in the area of the discovery shall be halted and the appropriate jurisdiction and TRPA shall be notified immediately. A qualified archaeologist shall be retained to assess the significance of the</p>	LTS	<p>Finding: Changes or alterations have been incorporated into the Shoreline Plan such that future projects would avoid or reduce the significant adverse environmental effects to a less-than-significant level.</p> <p>Rationale: Implementation of the Shoreline Plan could result in project construction that could encounter previously undiscovered or unrecorded archaeological sites and materials during project-related preconstruction or construction-related ground-disturbing activities. These activities could damage or destroy these archaeological resources. Mitigation Measure 16-2 would require future projects to avoid, move, record, or otherwise treat a discovered resource appropriately, in accordance with pertinent laws and regulations.</p>

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	<p>find. If the find is a prehistoric archeological site, the appropriate Native American group shall be notified. If the archaeologist determines that the find does not meet NRHP, NVSRHP, or CRHR standards of significance, as applicable, for cultural resources, construction may proceed. If the archaeologist determines that further information is needed to evaluate significance, a data recovery plan shall be prepared. If the find is determined to be significant by the qualified archaeologist (i.e., because the find is determined to constitute either an historical resource or a unique archaeological resource), the archaeologist shall work with the project applicant to avoid disturbance to the resources, and if complete avoidance is not feasible in light of project design, economics, logistics, and other factors, follow accepted professional standards in recording any find including submittal of the recordation forms required by the applicable SHPO and location information to the appropriate information center.</p>		<p>This mitigation measure will reduce potential impacts to a less-than-significant level.</p> <p>(Draft EIS, pp. 16-13 to 16-14; also see responses to comments O12-14 through O12-47)</p>
<p>Impact 16-3: Degrade ethnic and cultural values (PS) Because the project could result in physical changes to historic and prehistoric sites, unique ethnic cultural values could be affected, and historic or prehistoric religious or sacred uses within the Plan area could be restricted. Consultation with the Washoe Tribe is required by TRPA regulations; however, project activities could still uncover or destroy historic or archaeological resources as identified in Impact 16-1 (historic) and Impact 16-2 (archaeological).</p>	<p>Mitigation 16-3: Implement Mitigation Measures 16-1 and 16-2 TRPA will implement Mitigation Measure 16-1, "Avoid potential effects on historic resources," and 16-2, "Avoid potential effects on archaeological resources," as described above.</p>	LTS	<p>Finding: Changes or alterations have been incorporated into the Shoreline Plan such that future projects would avoid or reduce the significant adverse environmental effects to a less-than-significant level.</p> <p>Rationale: Implementation of the Shoreline Plan would result in project construction-related activities, both ground-disturbing and staging access, that could encounter previously undiscovered or unrecorded resources or restrict access to known resources. These activities could result in physical changes to sites, structures, and areas that have religious or sacred significance or other cultural significance to the Washoe people. Mitigation Measure 16-3 would reduce</p>

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			<p>potentially significant impacts to historic resources because mitigation would avoid, move, record, or otherwise treat a discovered resource appropriately, in accordance with pertinent laws and regulations.</p> <p>This mitigation measure will reduce potential impacts to a less-than-significant level.</p> <p>(Draft EIS, pp. 16-15 to 16-16; also see responses to comments 012-14 through 012-47)</p>

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