

# ***EXECUTIVE SUMMARY***

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## **I. PROJECT OVERVIEW**

In accordance with the Tahoe Regional Planning Agency's (TRPA) Compact, *Code of Ordinances* (Code) and *Rules of Procedure*, a Draft Environmental Impact Statement (DEIS) was prepared and circulated for public review and comment in July 2004 to evaluate the environmental impacts associated with five alternatives for regulation of Shorezone development in the Lake Tahoe Region. Pursuant to TRPA Code Subsection 54.3.B, the Shorezone DEIS considered modification of the fisheries location standards for structures in the Shorezone. The Proposed Project Alternative and three additional alternatives identified in the DEIS (not including the No Project Alternative) would modify TRPA Code Chapters 50 through 56, the Shorezone Provisions; Chapter 29, Historic and Cultural Resources; Chapter 79, Fish Resources; Chapter 75, Sensitive and Uncommon Plant Protection; and Chapter 2, Definitions, following the recommendations of the Shorezone Partnership Group, the Shorezone Policy Committee of the TRPA Governing Board, and TRPA staff. For purposes of the DEIS, the Shorezone includes the backshore, foreshore, and nearshore as defined by the TRPA Code, described in Chapter 1 of the DEIS, and illustrated in Figure ES-1.

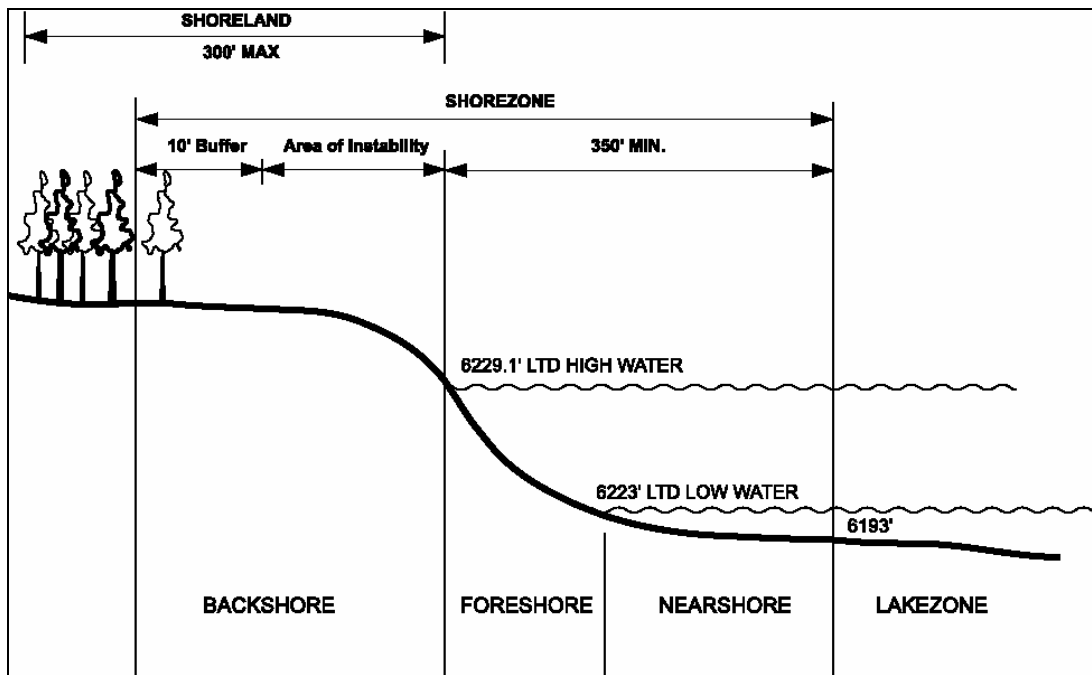
TRPA has responsibility for planning and managing the Shorezone of the lakes in the Tahoe Region. TRPA's Regional Plan Package, including the *Goals and Policies*, *Code of Ordinances*, the *Plan Area Statements* (TRPA's zoning equivalent document), and other guiding documents, identifies requirements with respect to the Shorezone.

Through review of comments on the DEIS and additional stakeholder input, TRPA identified an additional alternative that would meet most of the project objectives and would address concerns related to shorezone structure allocation and distribution, scenic mitigation systems, water quality, drinking water intakes, simplicity and clarity of the program, and other concerns. TRPA has determined that supplemental environmental analysis should be prepared to fully address the impacts of Alternative 6.

## **II. STATUS OF THE PROJECT**

The Shorezone DEIS, prepared in 2004, provided an analysis of the existing situation in the shorezones and lakezones of the Tahoe Region's lakes and evaluated the proposed Shorezone ordinance revisions (Alternative 2) and four other alternatives for future development regulations. In accordance with Code Subsection 54.3.B, the main action was identified as the reconsideration of the location standards for piers, mooring buoys, boat ramps, floating docks, and platforms in prime fish habitat areas identified as "Feeding and/or Escape Cover Habitat," "Spawning Habitat," or "Areas Targeted for Habitat Restoration."

**Figure ES-1. Lake Tahoe Shorezone Areas**



The DEIS was circulated for a 90-day public review period (July 1–September 28, 2004). Several public meetings were held, at which comments were received from agencies, organizations, and private individuals on the analysis contained in the DEIS and on the proposed Code amendments themselves. Written comments were also received during the public review period.

Following the close of the comment period, TRPA intended to prepare responses to comments and circulate a Final EIS (FEIS) that addressed those comments and included any revisions to the DEIS proposed as a result of the comments.

A substantial number of comments were received that noted the complexity of the proposed project as reflected in Alternative 2. Many commenters felt that the overlapping structure of Code amendments, permitting requirements, and mitigation measures identified in Alternative 2 was too complex and that the impacts of the development permitted under that scenario were excessive.

In response to these comments, TRPA reevaluated the range of alternatives that had been analyzed. Based on the comments that were submitted, TRPA crafted an alternative that would incorporate many of the mitigation measures identified in the DEIS to mitigate for significant environmental impacts of the five originally proposed alternatives. In essence, Alternative 6 was designed as a self-mitigating approach to amending the Code, in that its provisions would require little additional mitigation.

### **III. PURPOSE OF AND NEED FOR THE SUPPLEMENTAL DEIS**

According to Section 6.15, Article 6 of the TRPA Rules of Procedure, a supplemental EIS is required following preparation of an EIS if any of the following circumstances apply:

- (1) Subsequent changes are proposed in the project which involve new significant adverse effects not considered in the prior EIS; or
- (2) Substantial changes occur with respect to circumstances under which the project is undertaken, which involve new significant adverse effects not considered in the prior EIS; or
- (3) New information of substantial importance becomes available that shows any of the following:
  - i. The project may have a significant adverse effect not considered in the prior EIS;
  - ii. Significant adverse effects would be substantially more severe than previously discussed in the prior EIS; or
  - iii. Mitigation measures or alternatives, previously not found to be feasibly or not previously discussed, would substantially reduce a significant adverse effect of the project or matter which has not already been reduced to a less than significant level.

Although the new alternative is a variation of those already analyzed (i.e., many features of Alternative 6 were included in one or more of the five originally proposed alternatives) and would not likely result in greater impacts than the alternatives already defined, the combination of features and the slow annual approach to approval of facilities were determined to be different enough to constitute a substantial change in the project. For this reason, TRPA determined that a Supplemental DEIS shall be prepared to evaluate the potential for Alternative 6 to have significant adverse effects on the environment that have not been considered previously. The Supplemental DEIS is being recirculated for public comment, as described in Section 1.6 below.

Section 6.17, Article 6 of the TRPA Rules of Procedure allows that “[a]ll or part of other documents, including prior EISs, may be incorporated by reference in environmental documents.” This Supplemental DEIS contains new information regarding environmental impacts of the newly proposed Alternative 6. All information included in the original DEIS, published in July 2004, remains relevant and applicable to the Shorezone Ordinance amendment project, and the original DEIS is hereby incorporated by reference. This Supplemental DEIS adds to but does not replace the original DEIS; it supplements the DEIS and is not intended as a stand-alone document. Information provided in the original DEIS about environmental conditions and trends, regulatory considerations, thresholds of significance, and environmental impact analysis for the five originally proposed alternatives remains applicable to the analysis contained in this Supplemental DEIS and is referenced throughout this document. To review the full environmental analysis provided for the Shorezone Ordinance amendment project, refer to the original DEIS along with this Supplemental DEIS. The original DEIS is available at

the TRPA office, 128 Market Street, Stateline, NV, and is also available online at <<http://www.trpa.org>>.

#### **IV. FORMULATION OF ALTERNATIVE 6**

Alternative 6 proposes revisions to the Shorezone provisions of the Code similar to those of Alternative 2, with several key differences in approach. The general goal of this alternative is to limit shorezone development to a level that would have minimal environmental impacts because of up-front environmental protection measures that would be included in the Code. This goal, minimizing the environmental impacts of development, would be achieved through dual means:

- (1) limiting development in the shorezone to 220 private piers and 10 public piers over the planning period, with a maximum of 10 private piers allocated each year; and
- (2) designing new structures and mitigation measures to promote threshold attainment and maintenance.

The evaluation conducted for this alternative is linked to the PATHWAY 2007 Regional Plan program. It involves a slow authorization of development with performance criteria, monitoring, and adaptive refinement of density and design criteria in 5-year increments. This will ensure that thresholds are met and with the intent of avoiding significant environmental effects in the context of Lake Tahoe's status as an Outstanding Natural Resource Water (ONRW).

The planning approach of Alternative 6 is fundamentally different from that of the alternatives evaluated in the DEIS. Alternatives 1 through 5 were evaluated assuming a maximum number of potentially authorized shorezone structures, based on estimated buildout scenarios, which could occur within a longer or shorter timeframe. As described above, Alternative 6 also considers a maximum number of potentially authorized shorezone structures. Rather than using an estimate of buildout, however, the maximum number of potentially authorized structures for Alternative 6 is based on a maximum annual allocation of private piers over a planning horizon of 20 years, linked to the PATHWAY 2007 Regional Plan timeframe, with the opportunity for review, adaptive management, and revision every 5 years. This approach gives TRPA an opportunity to consider environmental, regulatory, technological, and other changes over time that may call for changes in policy or direction with regard to shorezone structures.

When the EIS compares the relative environmental effects of the alternatives, the comparison is associated with the impacts of the maximum number of potentially authorized shorezone structures. For any of the alternatives, the maximum number of potentially authorized shorezone structures could not be exceeded without a subsequent environmental review and action to change the ordinances by the TRPA Governing Board.

As described in the DEIS at page 2-14, full buildout of piers under the different alternatives would likely occur in different timeframes—2011 is a reasonable estimate for Alternative 1 and 2021 is estimated for Alternative 2. Though the term “buildout” does not apply to Alternative 6 because of the different planning approach, 230 additional piers at year 2027 is assumed to be the condition and timeframe at which all shorezone structures authorized under this alternative would be realized. Because any additional

structures would require consideration and approval of a subsequent action by the TRPA Governing Board, direct comparison of alternatives is meaningful in the context of long-term planning.

Alternative 6 was crafted, in particular, to address comments regarding scenic resources, public access, water quality, and fish habitat. These comments are described in more detail in Chapter 1, "Introduction."

## **V. SUMMARY OF PROJECT ALTERNATIVES**

The DEIS published in July 2004 considers five alternatives:

- (1) Alternative 1 is the "No Project Alternative" and would result in maintaining the current Code.
- (2) Alternative 2, identified in the DEIS as the "Proposed Alternative," represents previous input of the Shorezone Partnership Committee, comments from the TRPA Governing Board Shorezone Policy Committee, and determinations of TRPA staff's professional opinion. The general goal of this alternative, as proposed, was to ensure that all littoral parcel owners would be eligible to apply for a pier and sufficient buoys to access the lakes of the Region, that all impacts would be mitigated, and that all applicable environmental thresholds would be attained.
- (3) Alternative 3 would result in lifting the restrictions related to development in fish habitat areas.
- (4) Alternative 4 would allow development of public structures only.
- (5) Alternative 5 would result in the reduction of existing development.

The alternatives analyzed in the DEIS were developed to represent the following range of options. The No Project Alternative (maintaining the current Code) is required to be evaluated under the TRPA Code, and the former Proposed Alternative (a new Shorezone Ordinance permitting increased development with mitigation) was originally crafted as the preferred alternative, intended to meet the needs of multiple stakeholder groups. The third alternative was selected because TRPA has been asked many times over the years to lift the prohibition on construction in prime fish habitat as a sole Code amendment. The fourth alternative was selected as a type of reduced alternative in that it would allow only public structures to be placed in the Shorezone and at the same time would address TRPA's Recreation Threshold management standards (providing a fair share for public access) and Recreation Goals and Policies. Alternative 5 would achieve a reduction of structures over the existing baseline number but would include the other code revisions from Alternative 2 that are consistent with the development reduction principle. All other alternatives (1, 3, and 4) contain the existing code provisions.

Alternative 6 is the "Density-based, 230-Pier Alternative" and represents a different type of approach to limiting development in the shorezone. Rather than identifying a development rate that would be extended to buildout, Alternative 6 limits development to a maximum number of piers allocated each year over a 20-year planning horizon, at which time the program must be enacted anew. This new alternative is described in more detail below.

## VI. ALTERNATIVE 6 – DENSITY-BASED, 230-PIER ALTERNATIVE

This alternative proposes revisions to the Shorezone provisions of the Code similar to those of Alternative 2, with several key differences in approach. The general goal of this alternative is to limit shorezone development to a level that would have minimal environmental impacts because of up-front environmental protection measures that would be included in the Code. This goal, minimizing the environmental impacts of development, would be achieved through dual means: (a) limiting development in the shorezone to 220 private piers and 10 public piers over the planning period, with a maximum of 10 private piers allocated each year (see Table ES-1); and (b) designing new structures and mitigation measures to promote threshold attainment and maintenance.

<b>Table ES-1. Alternative 6 Projections at Full Implementation (2027)</b>			
<b>Structure Type</b>	<b>Private</b>	<b>Public</b>	<b>Total</b>
<b>Piers</b>			
Exist	727	41	768
New	220	10	230
Total	943	51	988
<b>Buoys</b>			
Exist	3,440	1,014	4,454
New	1,686	176	1,862
TOTAL	5,127	1,200	6,327
<b>Ramps</b>			
Exist	19	18	37
New	0	6	6
Total	19	24	43
<b>Slips</b>			
Exist	1,746	948	2,694
New	0	235	235
TOTAL	1,746	914	2,660

Table ES-2 provides a comparative summary of the buildout numbers for the five originally proposed alternatives and full implementation of Alternative 6.

**Table ES-2. Full Buildout/Full Implementation (2027) by Alternative, including Alternative 6**

Structure Type	Alternative 6	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (2:1 Reduction)
Piers	998*	839*	1,196*	1,399*	788*	732
Buoys	6,316	5,826	8,135	10,487	6,517	4,307
Ramps	43*	128*	72*	706*	50*	37
Slips	2,929	3,144	3,144	3,144	3,024	2,745

Source: TRPA 2004.

\*Totals do not include new extensions/expansions.

Under Alternative 6, the allocation program would use an adaptive management process similar to that now being used by TRPA to provide ongoing opportunities for review and revision of identified limits and restrictions. Currently, TRPA evaluates the status of attainment and maintenance of its threshold carrying capacities every 5 years. With the adoption of the new PATHWAY 2007 Regional Plan, a new requirement will be imposed that the Shorezone Ordinance evaluation process be revisited every 5 years to facilitate attainment and maintenance of thresholds.

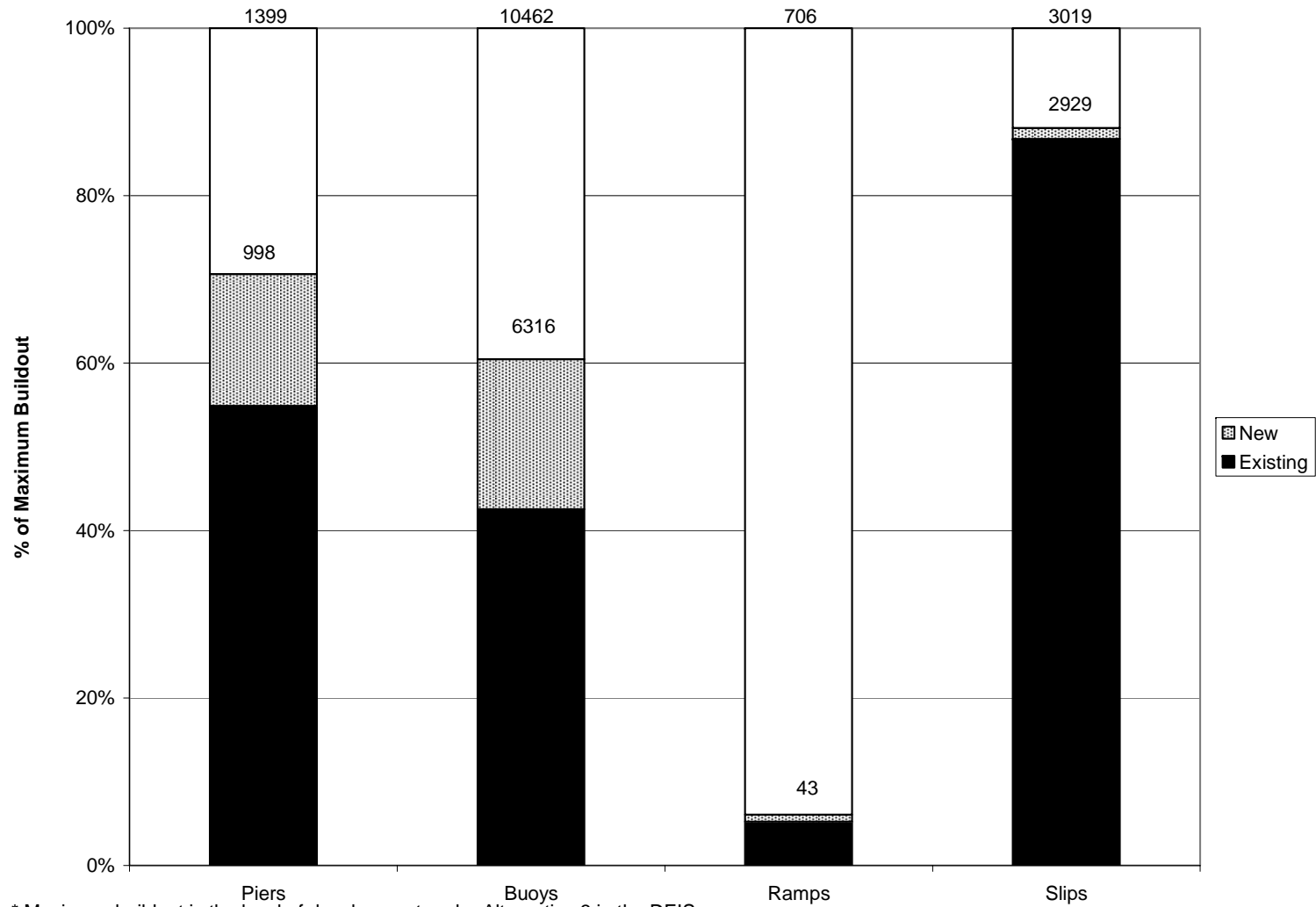
The evaluation conducted for this alternative is linked to the PATHWAY 2007 Regional Plan program and involves a slow authorization of development with performance criteria, monitoring, and adaptive refinement of density and design criteria in 5-year increments until the 2027 planning horizon is reached, to ensure that thresholds are met and with the intent of avoiding significant environmental effects.

## PIERS

All private littoral properties suitable for a private residence that do not have an existing pier and are not otherwise restricted would be eligible for consideration for a new pier, regardless of the length of littoral frontage or if they are served by a multi-use facility. Each parcel with clear private ownership to high water in both states would be eligible for no more than one pier. The littoral frontage of all properties that have a pier or have shared legal access to a pier would be considered “retired” from consideration for new piers. Applications for new piers would be prioritized based on the amount of littoral frontage that would be retired. For a property or group of properties to be eligible, existing structures on all properties included in an application must have implemented current best management practices (BMPs), and these properties must be brought into compliance with shoreland scenic ordinances as a condition of permit approval. The determination of compliance with shoreland scenic ordinances may be based on attainment of a 25 contrast rating or compliance with TRPA’s visual dominance curve (described in Chapter 6, “Scenic Quality,” of the DEIS).

Under Alternative 6, approximately 705 parcels would be eligible for allocation of a pier. Of these, approximately 630 piers could be granted under the density standards described below. The restriction to multi-use piers in scenic nonattainment areas reduces the number of possible piers that could be allocated to approximately 400. Regardless of the number of possible piers, however, the allocation process for Alternative 6 is limited to 10 new private piers per year, with a maximum of 220 new private piers and 10 new public piers being allocated over the planning period. This compares to an existing total of 768 piers (727 private and 41 public) (see Table ES-1 and Chart ES-1).

**Chart ES-1. Alternative 6 Projects at Full Implementation (2027)**



\* Maximum buildout is the level of development under Alternative 3 in the DEIS.

## Eligibility Restrictions

Eligibility is restricted for parcels in several categories:

- Parcels with existing deed restrictions because of access to a multi-use pier on another parcel are not eligible.
- Parcels in stream mouth setbacks are not eligible.
- Parcels within ¼ mile of public water intakes (see Figure 2-1 in Chapter 2) may not be eligible for piers without permission from the water purveyor.
- Private parcels with pier restrictions placed by homeowners associations, such as the lakefront properties at Tahoe Keys, are not eligible for new piers. Also excluded from new piers is that portion of Glenbrook currently closed to new piers. These restrictions will remain in place even if the homeowners associations change their rules.
- Parcels located in shoreline units that are not in compliance with the scenic standards are not eligible for single-use piers but may be allocated multi-use piers.
- Resource Protection Zones would be established in areas of the Shorezone where no structures would be allowed, to protect large portions of the pristine shoreline of Lake Tahoe and resources such as wildlife, scenic, sensitive plants, and other significant resources. These lands have been identified (see Figure 2-2 in Chapter 2) by TRPA staff through land use planning in balance with recreation needs of the Region. For the most part, Resource Protection Zones have been identified on publicly owned shorezone lands.
- A parcel located landward of a strip parcel or easement, where the upland landowner does not own the underlying fee title to high water, will not be considered a littoral parcel.
- All boundary line adjustments, including quiet title of quit claim adjustments, in the Shorezone would need TRPA review and approval as a project consistent with existing requirements for boundary line adjustments in the TRPA Code of Ordinances.

## Density Criteria

The number of private piers allowed in any shoreline unit would be based on density. Each shoreline unit would be categorized as visually sensitive, visually modified, visually dominated, or naturally dominated.

- Visually modified and visually dominated units (influenced by prominent existing structures, such as developed areas and marinas, respectively) would be allowed an average density of no more than one pier per 100 feet of shoreline. Marina expansions are additionally subject to TRPA's Marina Master Plan requirements under Section 54.12 of the *Code of Ordinances*.
- Visually sensitive shorelines (highly scenic or vulnerable landscapes, including sandy beaches, that exhibit the influence of human modifications in an otherwise

natural setting) would be allowed an average of no more than one pier every 200 feet.

These allowable densities would be determined as a whole for the unit, including both public and private piers. No new piers would be allocated to a shoreline unit once it exceeded the allowable density unless piers were removed elsewhere in the unit.

Shoreline areas categorized as naturally dominated shoreline (such as natural-appearing landscapes or historical/traditional locations in highly scenic locations), areas in stream mouth setbacks, and areas designated for Resource Protection Zones would be excluded from the density calculations for those units. Shoreline areas within water intake setbacks would be included in the density calculations.

### **Other Characteristics of Alternative 6**

A detailed description of Alternative 6 is provided in Chapter 2 of this Supplemental DEIS. The project characteristics described there include the following:

- Setbacks
- Design standards for maximum private single-use and multi-use piers and public multi-use pier
- Pier repairs, modification, and expansion
- Public piers
- Removal and modification to restore littoral processes
- Scenic requirements incorporated into the approval process
- Public access requirements
- Buoy permits, buoy recognition program, and annual removal and maintenance of buoy floats and chains
- Other facilities (boat ramps, floating docks/swim platforms, slips)
- Water quality improvements (boat sticker program, boat wash stations, limits to motorized use of Emerald Bay)
- Application process
- Fees (processing fee, threshold mitigation and maintenance fees)

### **CODE AMENDMENTS**

Chapter 2 of the original DEIS identifies the proposed amendments to the TRPA Code that would take effect if Alternative 2 were adopted. For Alternative 6, all of the proposed Code amendments are the same as those identified for Alternative 2 except where specifically defined in this chapter. The proposed Code amendment changes are identified in Appendix E of the DEIS.

## VII. PUBLIC REVIEW PROCESS

In accordance with TRPA Code 5.8.A (4), this Supplemental DEIS is being distributed for a 60-day public comment period. Comments on the Supplemental DEIS may be made either in writing before the end of the review period or at the public hearings to be held before the TRPA Advisory Planning Commission and Governing Board meetings. These meeting times and locations are listed in the Notice of Circulation accompanying this Supplemental DEIS. Written comments on the DEIS should be forwarded to:

Ms. Coleen Shade  
Tahoe Regional Planning Agency  
128 Market Street  
Stateline, NV 89449-5310  
E-mail: coleens@trpa.org

The public review period provides the opportunity for agencies, organizations, and members of the public to provide comments on the new analysis published in the Supplemental DEIS only. Because this is a supplemental document and not a full recirculation of the original DEIS, TRPA is not obligated to accept comments on the previously published DEIS; that document was circulated for a 90-day public comment period, which closed in September 2004. The comment period for this Supplemental DEIS, beginning on July 1, 2005, and ending on August 31, 2005, is limited only to the new information presented in this Supplemental DEIS.

Comments previously submitted will be responded to in a FEIS that will be prepared to address both the public comments on the original DEIS and comments on this Supplemental DEIS. Reviewers need not resubmit their comments on the original DEIS. The FEIS will take the form of a fully revised EIS and will incorporate Alternative 6 along with the five originally proposed alternatives. Text changes resulting from new information and responses to comments will be indicated in that document. The entire EIS will be considered, along with any revisions to the DEIS made in response to comments received, before the TRPA Governing Board renders a decision on the amendments to the Shorezone Ordinance.

## VIII. KEY ENVIRONMENTAL ISSUES ADDRESSED

The following key issues, which were identified during the original scoping process, were evaluated in the Supplemental DEIS, as in the DEIS.

**Land Use** - Issues raised include: conflicts between upland land uses and Shorezone uses; private versus public ownership of lands adjacent to the Shorezone; and public access.

**Fisheries** - Issues raised include: impacts to prime fish habitat as a consequence of structures built in the foreshore and nearshore and the activities associated with these structures; the cumulative impacts on fish of water quality degradation related to boating use; the Fish Study conclusions that piers and buoys have a neutral effect on fisheries; marginal habitat as a critical habitat for most species of larval fish; structures within the influence of a stream mouth; and the manipulation or removal of fish habitat substrate.

**Water** - Issues raised include: attainment and maintenance of water quality standards, water quality impacts as a consequence of boating activities, maintaining compliance with the Outstanding Natural Resource Waters (ONRW) non-degradation standard; marina and mooring facilities, and launching facilities; and dredging activities.

**Scenic** - Issues raised include: the effects of additional structures in the Shorezone related to size, bulk and density; the effects of implementing the Shorezone scenic system on the ability to attain and maintain thresholds; the integration of a new Shorezone scenic system with the adopted Shoreland system; the removal and manipulation of backshore vegetation and resulting scenic impacts.

**Recreation** - Issues raised include: conflicts among various recreational activities; cumulative noise impacts from concentrated Shorezone recreational activities; provision of a full spectrum of quality recreational opportunities; public access to the Shorezone from the upland; public access laterally on the California side below high water (the public trust easement); public access on the water within the Shorezone for anglers and boaters (non-motorized and motorized); and facilitation of the use of PAOTs.

**Air Quality and Transportation** - Issues raised include: attainment and maintenance of air quality standards; the effects of motor craft engines on air quality; and changes in traffic patterns as a result of new public facilities.

**Noise** - Issues raised include: adequacy of the single event noise standards; cumulative noise impacts; noise impacts on special interest species; conflicts between recreationists' expectations and perceived noise levels; and noise produced by personal watercraft.

**Vegetation** - Issues raised include: the protection and preservation of *Rorippa subumbellata* (Tahoe yellow cress); the replacement of naturally occurring vegetation with approved and non-approved landscaping in the backshore; removal of vegetation resulting in wildlife impacts; removal of vegetation resulting in scenic impacts; removal of trees for private property view enhancement; and vegetation removal in the foreshore and nearshore during periods of low water.

**Soil Conservation / Littoral Processes / Stream Environment Zones (SEZ)** - Issues raised include: maintenance of backshore stability; minimizing impacts to littoral processes; protection and restoration of SEZs in the backshore; and protection of barrier beaches.

**Wildlife** - Issues raised include: impacts on special interest species as a result of increased boating access and noise; the cumulative impacts of noise produced by watercraft; and the loss or breaking up significant wildlife habitat in the backshore.

**Archaeological, Historical, and Cultural Resources** - Issues raised include: physical impacts to Washoe Indian historical sites as a result of existing or potential development in the Shorezone; impacts to the cultural integrity of Washoe sites as a result of Shorezone development; impacts on historical sites and artifacts as a result of Shorezone development; and the lack of historical survey data in the Shorezone.

## **IX. OTHER EFFECTS**

**Economics** - Issues raised include: costs to public and private shoreline property owners from the permit process for Shorezone projects; increased property values as a result of Shorezone structures; and community economic benefits as a consequence of public facilities in the Shorezone.

**Public Health and Safety** - Issues raised include: spatial conflicts and safety concerns due to the potential for additional boat access; and Shorezone structures as navigational hazards.

## **X. SIGNIFICANT IMPACTS AND MITIGATION SUMMARY**

Table ES-3 presents a summary of significant impacts identified and required mitigation measures related to Alternative 6. Beneficial effects of the alternatives and less-than-significant impacts are not included.

**SUMMARY TABLE 1. SIGNIFICANT IMPACTS AND MITIGATION SUMMARY FOR ALTERNATIVE 6**

Significant Impacts	Mitigation Measures
<b>3-LAND USE</b>	
<b>Alternative 6</b> No significant impacts on land use were identified.	N/A
<b>4-FISHERIES</b>	
<b>Alternative 6</b> <b>Impact 4.6.1:</b> Prior to approval of projects in areas identified as prime fish habitat, development of proven restoration BMPs and identification of areas that could be successfully reclaimed as spawning habitat at a 1.5:1 ratio would be required, thereby avoiding significant adverse impacts to fisheries resources.	No mitigation measures would be required for Impact 4.6.1.
<b>Impact 4.6.2:</b> Because code amendments and other regulations would establish construction prohibitions and other restrictions, disturbance during spawning would be reduced. This would result in less-than-significant effects to fisheries resources.	No mitigation measures would be required for Impact 4.6.2.
<b>Impact 4.6.3:</b> Alternative 6 relies on current requirements that would require planning, analysis, and approval conditions before construction of ramps and associated dredging; therefore, significant adverse impacts to fisheries resources would be avoided.	No mitigation measures would be required for Impact 4.6.3.
<b>Impact 4.6.4:</b> Because code amendments would establish fisheries BMPs on all Shorezone parcels and a mitigation fee program specific to Shorezone development would provide a funding source for fisheries improvement projects, construction of structures and creating sandy beaches in the Shorezone would result in less-than-significant effects to fisheries resources.	No mitigation measures would be required for Impact 4.6.4.
<b>Impact 4.6.5:</b> Because code amendments would establish prohibitions on floating piers and require utilization of dynamic shoreline protection methods over static methods, existing and new construction impacts associated with floating piers and backshore revetments would be less than significant.	No mitigation measures would be required for Impact 4.6.5.
<b>5-WATER QUALITY</b>	
<b>Alternative 6</b> <b>Impact 5.6.1:</b> Alternative 6 would rely on current regulations that require planning, analyses, and approval conditions prior to dredging; therefore, significant adverse impacts to water quality would be avoided and discharges of nutrients from dredging activities at Lake Tahoe would be less than significant.	No mitigation measures would be required for Impact 5.6.1.
<b>Impact 5.6.2:</b> Because Code amendments and other regulations would establish fueling prohibitions, ONRW sticker requirements, public education, and use of treatment devices, effects to water quality would be reduced. This would result in less-than-significant effects to water quality.	No mitigation measures would be required for Impact 5.6.2.
<b>Impact 5.6.3:</b> Alternative 6 would include a fee program that would contribute to funding of Shorezone EIPs that would reduce NOx emissions in the Region and mitigate increased emissions and atmospheric deposition of NOx into Lake Tahoe; therefore, significant adverse impacts to water quality would be avoided.	No mitigation measures would be required for Impact 5.6.3.
<b>Impact 5.6.4:</b> Alternative 6 would include a provision requiring TRPA to design, adopt, and require the implementation of BMPs that reduce discharges from vehicles, trailers, and boats, thereby avoiding significant adverse impacts to water quality.	No mitigation measures would be required for Impact 5.6.4.

## SUMMARY TABLE 1. SIGNIFICANT IMPACTS AND MITIGATION SUMMARY FOR ALTERNATIVE 6

Significant Impacts	Mitigation Measures
<p><b>Impact 5.6.5:</b> Because Alternative 6 would include code amendments to reduce impacts from the continued use of existing access trails through the backshore to the foreshore and the shorezone structure(s), water quality impacts due to increases in backshore access-related impervious coverage and disturbance areas would be reduced. This would result in less-than-significant effects to water quality.</p>	<p>No mitigation measures would be required for Impact 5.6.5.</p>
<b>6-SCENIC QUALITY</b>	
<p><b>Alternative 6</b>  <b>Impact 6.6.1:</b> Density criteria and priority given to applications with the greatest shoreline retirement with Alternative 6 are intended limit the increase in density of piers in scenically sensitive shorelines. The alternative includes a restricted number of new piers (230 maximum), which would also promote limited increases in pier density around the lake. Nonetheless, the alternative allows for additional structures in the shorezone, which would increase visual magnitude and result in potentially significant impact on scenic resources.</p>	<p><b>Mitigation Measure 6.6.1:</b> As a condition of approval of any new pier that adds visual magnitude to the shorezone, the applicant shall implement the following mitigation measures.</p> <ol style="list-style-type: none"> <li>1. Scenic mitigation shall be implemented at a ratio of 1.5:1 for projects in shoreline travel units not in attainment and 1.0:1 in shoreline travel units in attainment with scenic thresholds, regardless of the existing contrast rating of the involved parcel(s).</li> <li>2. Mitigation shall be achieved by the removal or screening of visible square footage or by improvement of the contrast rating of the project area consistent with TRPA's Visual Magnitude Contrast Rating System, which allows greater visible square footage when the contrast rating for a project area is higher. For multi-use piers, the mitigation may occur on any parcels for which deed restrictions are being created to provide access to the pier.</li> <li>3. The obligation for the scenic mitigation shall be permanently tied to the parcel(s) and shall be in addition to any existing or future scenic mitigation requirements resulting from any other development on the parcel(s).</li> </ol>
<p><b>Impact 6.6.2:</b> Alternative 6 would allow approval of new piers and expansions or modifications of existing piers. They would be required to comply with TRPA-adopted pier design standards, which would reduce the impact by restricting the visible presence of the pier. Also, the qualifying contrast rating of 25 for shoreland portions of involved parcels may mitigate the effect in some cases (e.g., where the existing contrast rating is below 25). However, any unmitigated increase in visual magnitude from new, expanded, or modified piers could adversely affect the scenic quality ratings of shoreline travel units. Therefore, approval of new piers, pier expansions, or pier modifications under the provisions of Alternative 6 could result in a significant adverse impact to scenic resources.</p>	<p><b>Mitigation Measure 6.6.2:</b> As a condition of approval of any new pier, pier expansion, or pier modification that adds visual magnitude to the shorezone, the applicant shall implement the actions in Mitigation Measure 6.6.1.</p>
<p><b>Impact 6.6.3:</b> Property line setback, shoreline distance, and spacing standards for buoys in Alternative 6 would result in the placement, field size, and density of new buoys being maintained at a level that would not substantially affect scenic quality ratings of shoreline travel units. With these standards, up to an estimated 1,862 new buoys could be installed. This would be a less-than-significant scenic impact.</p>	<p>No mitigation measures would be required for Impact 6.6.3.</p>
<p><b>Impact 6.6.4:</b> With the combination of eligibility criteria, density criteria, and design standards included in Alternative 6, additional clutter visible from roadway travel units and recreation areas would be moderated and dispersed; therefore, while some additional shorezone structures would be visible, they would not alter attainment status for roadway units or recreation areas. This would be a less-than-significant scenic impact.</p>	<p>No mitigation measures would be required for Impact 6.6.4.</p>

## SUMMARY TABLE 1. SIGNIFICANT IMPACTS AND MITIGATION SUMMARY FOR ALTERNATIVE 6

Significant Impacts	Mitigation Measures
<b>7-RECREATION</b>	
<p><b>Alternative 6</b></p> <p><b>Impact 7.6.1:</b> With the design standards included in Alternative 6, impairment of legal, lateral shoreline pedestrian access would take place to a lesser degree than under the previously described alternatives. Increased numbers of Shorezone structures and development would continue to reduce lateral pedestrian access along the Shorezone. This would result in a significant effect on shoreline recreational access.</p>	<p><b>Mitigation Measure 7.6.1a:</b> TRPA shall develop a sign program, in cooperation with the California State Lands Commission, the Nevada Division of State Lands, and the California Tahoe Conservancy, in addition to all other public Shorezone property owners, which results in the installation of signs at key shoreline access points. The signs shall explain the rights of the public and the private property owner with respect to lateral access along the shoreline of the Lake, and encourage appropriate use of the lateral access. If necessary, TRPA should amend Code Chapter 26, Signs, to regulate signage in the Shorezone, such as “No Trespassing” signs that discourage persons from utilizing public trust lands and private lands containing public easements. The number of signs and the financial impact to the individual agencies is undetermined.</p> <p><b>Mitigation Measure 7.6.1b:</b> Fences that extend lakeward of high water, and which are not for the protection of the health and welfare of the general public or are not approved by agencies having jurisdiction, shall be retrofitted pursuant to TRPA’s Code of Ordinances. Where retrofit will not remove the impedance to access, fences shall be required to be removed.</p> <p><b>Mitigation Measure 7.6.1c:</b> TRPA shall discourage local jurisdictions from abandoning or quitclaiming interests in parcels or easements that could provide public access. TRPA shall amend its Code to require, as a condition of approval on any boundary line adjustment or lot consolidation, the dedication of public access where there is a loss of public access to the Lake and/or where lateral access is affected.</p>
<p><b>Impact 7.6.2:</b> New and expanded private piers approved under Alternative 6 would be limited in density by criteria in the Shorezone ordinance and in length by the TRPA-adopted design standards. While any new or extended pier would interfere to an extent with non-motorized watercraft navigation, the limitations required in the ordinance would keep the effect at a less-than-significant level.</p>	<p>No mitigation measures would be required for Impact 7.6.2.</p>
<p><b>Impact 7.6.3:</b> Alternative 6 would result in increased motorized boating, which may degrade the quality of the beach recreation experience, because of boat noise. This is a potentially significant effect.</p>	<p><b>Mitigation Measure 7.6.3a:</b> TRPA shall provide or make available information on the 600-foot no-wake zone regulations and noise regulations pertaining to motorized watercraft at all public launching facilities and concessionaires that provide access to the use of watercraft (whether privately owned or rented). Appropriate information shall be made available to the general public, as well as the boating public.</p> <p><b>Mitigation Measure 7.6.3b:</b> TRPA shall coordinate with the States of Nevada and California to adopt the necessary regulations so that the Nevada Department of Wildlife and California Boating and Waterways can assist TRPA in enforcing the 600-foot no-wake zone.</p>
<b>8-AIR QUALITY &amp; TRANSPORTATION</b>	
<p><b>Alternative 6</b></p> <p><b>Impact 8.6.1:</b> Alternative 6 would result in an increase of NOx emissions from motorized watercraft.</p>	<p><b>Mitigation Measure 8.6.1a:</b> TRPA shall perform bi-annual boater’s surveys, as conducted in 2002, to obtain data that will be used in conjunction with air quality monitoring to determine the impacts fro watercraft on air pollution. This mitigation measure could be partially funded and facilitated through the Tahoe boating sticker program discussed above.</p>

**SUMMARY TABLE 1. SIGNIFICANT IMPACTS AND MITIGATION SUMMARY FOR ALTERNATIVE 6**

Significant Impacts	Mitigation Measures
	<p><b>Mitigation Measure 8.6.1b:</b> TRPA shall implement an ongoing public education program directed towards the benefits of proper tuning of boats. It is expected that most residents and those who use their boats frequently on Lake Tahoe and other high-elevation lakes will have their boats properly tuned for the elevation, therefore reducing air emissions and improving the functionality of the boat. However, those bringing boats in from out of the Basin may not have their boats properly tuned, which results in an increase in air emissions. Therefore, the public education program should include intense focus on this group of boat users. This mitigation measure could be partially funded and facilitated through the Tahoe boating sticker program discussed above.</p> <p><b>Mitigation Measure 8.6.1c:</b> As determined above, estimates indicate that emissions at buildout can increase by approximately 30 percent from 2002 base levels without significant impacts to air quality. However, with watercraft fleet turnover and future regulations to reduce boat emissions, the predicted emissions for this alternative may fall lower than is currently estimated, therefore allowing a larger increase in boat use. The impacts to air quality from increased boat use will be measured by ongoing air quality monitoring, which includes currently-existing on-land monitoring sites operated by TRPA and other entities, plus increased monitoring of specific areas resulting from the implementation of the above mitigation measures. Also, bi-annual boater's surveys will be conducted to obtain the information found in the 2002 boater's survey. The combined monitoring and survey data will be used to analyze the affects of boat use on air emissions. If it is found that boat emissions are having a significant impact on air quality (including contributing to or solely causing the exceedances of any federal, state or TRPA standard), or if emissions have increased by 25 percent over the base year for any pollutant, then measures will be taken to reduce these impacts to a less than significant level. Such measures include the implementation of the following programs, either individually or in combination: limitations on daily boat launches (may be daily, peak day/weekend or Holiday periods), limitations on new shoreline structures that increase the number of boats on the lake, and/or changes to existing structures which will reduce the number of boats in use at any one time.</p>
<b>Impact 8.6.2:</b> Alternative 6 would result in an increase of ROG emissions from motorized watercraft.	Mitigation Measures 8.6.1a through 8.6.1c
<b>Impact 8.6.3:</b> Alternative 6 would result in an increase of CO emissions from motorized watercraft.	Mitigation Measures 8.6.1a through 8.6.1c
<b>9-NOISE</b>	
<p><b>Alternative 6</b></p> <p><b>Impact 9.6.1:</b> Alternative 6 would result in an increase in noise from boating activity.</p>	<p><b>Mitigation Measure 9.6.1a:</b> Use of signing and other educational means to advise the public of potential noise problems and increase awareness of the 600-foot no-wake zone.</p> <p><b>Mitigation Measure 9.1.1b:</b> To prevent exceedances of noise standards, the following measures will be implemented based on the status of the project area. The increased noise levels associated with increased structures will be determined by expert analyses of the specific location and proposed project(s). Noise analyses will be required where structures are expected to increase the number of boats on the lake by 5 or more.</p> <p>In shoreline areas found to be out of attainment of TRPA's CNEL standard based on long and short term monitoring included in the sticker program, no new buoys will be allowed.</p> <p>In shoreline areas found to be within 3 dBA of the CNEL standard based on the monitoring designated above (prior to the addition of structures), the increase in buoy density at buildout</p>

## SUMMARY TABLE 1. SIGNIFICANT IMPACTS AND MITIGATION SUMMARY FOR ALTERNATIVE 6

Significant Impacts	Mitigation Measures
	<p>must be consistent with maintaining noise levels at or greater than 1 dBA below the CNEL standard.</p> <p>In shoreline areas where an increase in structures is expected to increase noise by greater than 3 dBA, buoy density will be limited to correlate with an increase in noise of 3 dBA or less.</p> <p>The monitoring of this mitigation measure will be partially or fully funded and implemented by the sticker program.</p>
<p><b>Impact 9.6.2:</b> Alternative 6 would result in an increase in noise from vehicle traffic accessing public facilities.</p>	<p><b>Mitigation Measure 9.6.2a:</b> To prevent exceedances of noise standards associated with increases in vehicle traffic, the following measures will be implemented based on the status of the project area. The increased noise levels associated with increased structures will be determined by expert analyses of the specific location and proposed project(s). Noise analyses will be required where structures are expected to increase the number of boats on the lake by 5 or more.</p> <p>In areas found to be out of attainment of TRPA's CNEL standard based on long and short term monitoring included in the sticker program, no new structures which would increase the number of vehicles in the area will be allowed unless mitigation strategies can be identified to reduce the noise impact to a less than significant level.</p> <p>In areas found to be within 3 dBA of the CNEL standard based on the monitoring designated above (prior to the addition of structures), the increase in shoreline structures at buildout must be consistent with maintaining noise levels at or greater than 1 dBA below the CNEL standard.</p> <p>In areas where an increase in structures is expected to increase noise by greater than 3 dBA, the increase in structures will be limited to correlate with an increase in noise of 3 dBA or less.</p>
<b>10-VEGETATION</b>	
<p><b>Alternative 6</b></p> <p><b>Impact 10.6.1:</b> Because the Code's restoration requirements would be amended to require that in-kind restoration occurs in the Shorezone at a restoration-to-disturbance ratio of 1.5:1, and other vegetation protection and monitoring measures will be implemented, a net loss of riparian plant communities would be avoided. Therefore, impacts on riparian plant communities would be less than significant.</p>	<p>No mitigation measures would be required for Impact 10.6.1.</p>
<p><b>Impact 10.6.2:</b> Development of and access to new piers could occur near Tahoe yellow cress populations; however, protective measures will be implemented to avoid impacts to Tahoe yellow cress. Therefore, effects on sensitive plant communities would be less than significant.</p>	<p>No mitigation measures would be required for Impact 10.6.2.</p>
<p><b>Impact 10.6.3:</b> Alternative 6 incorporates water quality protection requirements for dredging, boating, and backshore development activities. Therefore, significant adverse impacts on water clarity and deepwater plant communities would be avoided.</p>	<p>No mitigation measures would be required for Impact 10.6.3.</p>
<p><b>Impact 10.6.4:</b> Because Code amendments would require boat launching facilities and marinas to prepare an invasive weed management plan, Alternative 6 would not significantly contribute to the introduction and proliferation of invasive weeds.</p>	<p>No mitigation measures would be required for Impact 10.6.4.</p>
<b>11-SOIL CONSERVATION</b>	
<p><b>Alternative 6</b></p> <p><b>Impact 11.6.1:</b> Development under Alternative 6 could result in the loss of SEZ and increased erosion.</p>	<p>No mitigation measures would be required for Impact 11.6.1.</p>

**SUMMARY TABLE 1. SIGNIFICANT IMPACTS AND MITIGATION SUMMARY FOR ALTERNATIVE 6**

<b>Significant Impacts</b>	<b>Mitigation Measures</b>
<b>Impact 11.6.2:</b> Development of structures in the Shorezone could result in excessive land coverage.	No mitigation measures would be required for Impact 11.6.2.
<b>Impact 11.6.3:</b> Under Alternative 6, conditions could continue that have resulted in inadequate delineation of unstable backshore area.	No mitigation measures would be required for Impact 11.6.3.
<b>Impact 11.6.4:</b> Alternative 6 would result in construction of additional shoreline protective structures/retaining walls.	No mitigation measures would be required for Impact 11.6.4.
<b>Impact 11.6.5:</b> Development of structures under Alternative 6 could result in continued and additional disruption to littoral drift processes along the Shorezone.	No mitigation measures would be required for Impact 11.6.5.
<b>12-WILDLIFE</b>	
<b>Alternative 6</b> <b>Impact 12.6.1:</b> Because the Code's restoration requirements would be amended to require that in-kind restoration occurs in the Shorezone at a restoration-to-disturbance ratio of 1.5:1, and other vegetation protection and monitoring measures will be implemented, a net loss of riparian habitat would be avoided. Therefore, impacts on riparian plant communities would be less than significant.	No mitigation measures would be required for Impact 12.6.1.
<b>Impact 12.6.2:</b> Alternative 6 could result in disturbance of bald eagle, osprey, and wintering bald eagle disturbance zones and of waterfowl management zones. However, TRPA will designate and maintain Resource Protection Zones for nesting osprey, bald eagle, and waterfowl. Also, TRPA will develop and implement a public education program that directs boats and recreationists away from breeding sites and core habitat of special-interest species during sensitive periods. Therefore, effects on these species would be less than significant.	No mitigation measures would be required for Impact 12.6.2.
<b>Impact 12.6.3:</b> Alternative 6 could result in increased snag removal. However, because the Code would be amended to prohibit the removal of all snags measuring at least 24" dbh and 20' tall in the Shorezone, this potential impact would be less than significant.	No mitigation measures would be required for Impact 12.6.3.
<b>Impact 12.6.4:</b> Because Code amendments would require boat launching facilities and marinas to prepare an invasive weed management plan, Alternative 6 would not significantly contribute to the introduction and proliferation of invasive weeds.	No mitigation measures would be required for Impact 12.6.4.
<b>13-ARCHAEOLOGICAL, HISTORICAL, CULTURAL</b>	
<b>Alternative 6</b> <b>Impact 13.6.1:</b> Alternative 6 could result in a loss of any known or unknown historic, cultural, or archaeological sites from modifications to existing structures.	<b>Mitigation Measure 13.6.1a:</b> TRPA shall implement a mitigation fee for Shorezone structures that will be used to increase public awareness of historical resources in the Tahoe Region. This shall include awareness of the types of resources potentially present and the types of activities that create potential adverse impacts. Groups to be targeted include subject property owners, designers, and contractors. <b>Mitigation Measure 13.6.1b:</b> TRPA shall establish setbacks from existing Washoe sites, or other Washoe sites that are discovered and determined to be potentially significant. The setbacks shall apply to structures, uses and certain activities in the Shorezone, which are determined by TRPA, or a qualified archaeologist, and/or the Washoe tribe as posing a threat to the resource.

**SUMMARY TABLE 1. SIGNIFICANT IMPACTS AND MITIGATION SUMMARY FOR ALTERNATIVE 6**

Significant Impacts	Mitigation Measures
	<b>Mitigation Measure 13.6.1c:</b> At documented Archaeological (Washoe) sites, TRPA in coordination with the appropriate body (e.g., Washoe Tribe, Placer County Museums, or other group) send educational materials to property owners geared toward encouraging sensitivity and responsibility in protecting resources associated with these sites. Additionally, TRPA shall include information pertaining to the legal ramifications of removing, destroying or otherwise altering the condition and location of such sites and their contents.
<b>Impact 13.6.2:</b> Alternative 6 could result in the disturbance, demolition or removal of any known resource from a site.	<b>Mitigation Measure 13.1.2a:</b> TRPA shall, when deemed appropriate, require that signs be placed in or around documented historical sites in conjunction with project approval and construction (not including Washoe sites) to educate the general public about the importance of the resources and their sensitivity to disturbance.
	Mitigation Measures 13.6.1a through 13.6.1c.
<b>Impact 13.6.3:</b> Alternative 6 could result in the disturbance, demolition or removal of any unknown or unearthened resource from a site.	Mitigation Measures 13.6.1.a through 13.6.1.c and 13.6.2.a.
<b>14-ECONOMIC</b>	
<b>Alternatives 6</b> No significant economic impacts were identified for any alternative.	N/A
<b>15-PUBLIC HEALTH &amp; SAFETY</b>	
<b>Alternative 6</b> <b>Impact 15.6.1:</b> Alternative 6 could result in increased boating use and accidents.	<b>Mitigation Measure 15.6.1a:</b> To minimize the potential impacts caused by an increase in boating, TRPA shall coordinate with the California Boating and Waterways and Nevada Department of Wildlife to legislate a 600 foot no wake zone on Lake Tahoe with each state. In addition, funds collected as part of the Lake Tahoe boat sticker program included in Alternative 6 will fund additional law enforcement and water quality needs on Lake Tahoe.