THE TRPA PREFERRED ALTERNATIVE – PROGRAM DESCRIPTION

The TRPA Preferred Alternative blends different programs and concepts included in the Final Shorezone EIS. TRPA formulated this alternative through a series of public meetings and with input from California and Nevada state agencies based on their concerns about full implementation of Alternative 6A as originally proposed. The Preferred Alternative includes adjustments to Alternative 6A and several key revisions to the Shorezone provisions of the Code (proposed Chapters 50–55, included in Appendix 1 of this FEIS). The general goal of this proposal, as with Alternative 6A, is to limit Shorezone development to a level that would have minimal environmental impacts as a result of up-front environmental protection features that would be included in the Code. This goal, minimizing the environmental impacts of development, would be achieved through dual means:

(1) phasing-in new development contingent upon meeting specific environmental protection and mitigation targets, with a maximum of 5 new private piers allowable each year; and

(2) designing new structures and mitigation measures to promote attainment and maintenance of Thresholds.

Table 2-1 shows the total number of each type of Shorezone structure allowable under the Preferred Alternative. Table 2-2 provides a comparative summary of the maximum buildout numbers for Alternatives 1 through 6, 6A, and the Preferred Alternative. Chart 2-1 compares full buildout of the Preferred Alternative with maximum buildout of any of the previously identified alternatives (that is, the addition of every possible structure under Alternative 3, the least restricted alternative).

<table>
<thead>
<tr>
<th>Structure Type</th>
<th>Private</th>
<th>Public</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Piers</strong></td>
<td></td>
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<tr>
<td>Existing</td>
<td>727</td>
<td>41</td>
<td>768</td>
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<tr>
<td>New</td>
<td>128</td>
<td>10</td>
<td>138</td>
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<tr>
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<td>855</td>
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<td>906</td>
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<tr>
<td><strong>Buoys</strong></td>
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<tr>
<td>Existing</td>
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<tr>
<td>New</td>
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<tr>
<td>Total</td>
<td>5,126</td>
<td>1,190</td>
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<td><strong>Ramps</strong></td>
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<tr>
<td>Existing</td>
<td>19</td>
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<tr>
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</tr>
<tr>
<td>Total</td>
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<tr>
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<tr>
<td>Total</td>
<td>1,746</td>
<td>1,183</td>
<td>2,929</td>
</tr>
</tbody>
</table>

Note: Gray highlighting indicates revised numbers with the Preferred Alternative.
Source: TRPA 2005
The Preferred Alternative refines Alternatives 1–6 and 6A based on input from California and Nevada state agencies and the TRPA Governing Board following publication of the Final EIS. In particular, commenters requested reconsideration of or additional information about several issues:

- the desire to phase in development potential as environmental protections are phased in,
- the desire to describe full buildout numbers instead of a planning horizon, and
- the desire to implement and test mitigation programs before development is permitted.

TRPA is required by the Compact to review the status of attainment and maintenance of Thresholds every 5 years. The Preferred Alternative would use and expand this existing adaptive management process to provide periodic review of the proposed program’s environmental protection features and to examine the success of identified limits and restrictions and the possible need for modification of those limits and restrictions. Every 5 years, TRPA conducts a comprehensive evaluation of whether each Threshold is being achieved and/or maintained, recommends specific actions to address problem areas, and directs general planning efforts for the next 5-year period. Following adoption of the Shorezone Ordinance amendments, the environmental protection features incorporated into the Code through these amendments would be included in the Threshold evaluation. If TRPA determines that allowing additional Shorezone structures would have an adverse effect on attainment of any Threshold, TRPA would use the adaptive management process to revise the Shorezone density and design standards accordingly. If, based on ongoing monitoring, it becomes evident that performance standards are not being achieved, TRPA would make adjustments to the program as necessary, including deferral of additional approvals and implementation of new or modified mitigation measures.

As an additional adaptive management feature, the Preferred Alternative would require TRPA staff to provide an annual report to the Governing Board describing progress on implementation of these programs and assessing the effectiveness of the environmental protection features provided in the Shorezone Ordinance. The Preferred Alternative also includes early implementation of the “ONRW Blue Boating Program” (see below) as an effective means of maintaining and improving the environment.

The Preferred Alternative has an estimated buildout total of 128 new private piers. Unlike Alternatives 6 and 6A, this alternative is not constrained by a planning horizon, but looks at full buildout, as was done for Alternatives 1–5. The Preferred Alternative employs a phased-in approach for several components of the plan, ensuring that environmental protections and mitigation measures are successful before development is allowed. The adopted Shorezone Ordinances would be made part of TRPA’s existing code.

TRPA’s 1987 Regional Plan is currently being updated as part of Pathway, a collaborative effort among the TRPA, the U.S. Forest Service, Lahontan Water Board and the Nevada Division of Environmental Protection to update their environmental and planning documents for the Lake Tahoe Basin. Upon approval of the revised TRPA Regional Plan prepared as part of Pathway, the adopted Shorezone Ordinances will be evaluated for
The Preferred Alternative Projections at Full Buildout

Source: EDAW 2006

* Maximum buildout is defined as the level of development permissible under Alternative 3, the most development-intensive alternative assessed in the DEIS.

Chart 2-1

Lake Tahoe Shorezone Ordinance Amendments Final EIS

May 2008
TRPA Preferred Alternative
consistency with the new Thresholds and Regional Plan to determine whether changes are necessary to bring the Shorezone Ordinances into conformance with any revised Thresholds or Goals and Policies.

The major elements of the Preferred Alternative are described below.

PIERS

All private littoral parcels that meet the minimum lot size for a private residence, do not have an existing pier, are not served or eligible to be served by a homeowner’s association pier, and are not otherwise deed restricted for a pier would be eligible for consideration for a new private pier, regardless of the length of littoral frontage. The minimum lot size requirement does not apply to homeowners association and public piers (proposed Code Section 52.2.C). Each parcel with clear private ownership to high water (as that is defined in each state) meeting the eligibility requirements would be eligible for no more than one pier.

Each year, TRPA would prioritize applications for new piers based first on the total number of parcels retired and secondly on the length of littoral frontage that would, upon construction of a pier, be retired (i.e., would give up the potential to construct a pier). The highest ranking would be given to applications that retire the most parcels and, in the case of a tie, would then adjust the rankings to benefit those applications that retire the most littoral frontage. Additional selection criteria (which would be used in the case of a tie based on the number of parcels and length of littoral frontage) would be based on the environmental sensitivity of the project area.

For a property or group of properties to be eligible for a pier, all properties included in an application must have fully approvable, current best management practices (BMPs) in place (as determined by TRPA’s Erosion Control Team under the BMP Retrofit Program). These properties must achieve specified scenic standards, including a 25 contrast rating (described below in “Scenic Requirements”), as a condition of permit approval. Piers proposed in feeding and/or escape cover habitat must restore any modifications made to such habitat since 1972, and mitigate potential habitat impacts from the new pier. Additional restrictions and mitigations for spawning habitat are described below under “Eligibility Restrictions, Fish Spawning Habitat”, (proposed Code Section 54.4.F).

New private pier permits may be accepted by TRPA for processing and/or approval at a rate of no more than 5 per year. Given the location criteria and eligibility restrictions described below, it is estimated that a maximum of 128 new private piers could be constructed at full build-out. This is the maximum number of new private piers that would be allowed at Lake Tahoe.

Public piers would be approved separately from the private allocation. A maximum build-out of 10 new public piers is estimated. This is the maximum number of new public piers that would be allowed at Lake Tahoe. New public piers authorized under the proposed Shorezone Ordinances may not be converted to private use. With the Preferred Alternative, a new pier (that is, a pier included in the 5-per-year allocation or a new public pier) does not include expansion, modification, or transfer of an existing structure. TRPA would approve these actions separately under different criteria (described below), without the need to obtain a new pier allocation.

ELIGIBILITY RESTRICTIONS

Parcel eligibility would be restricted in several categories. Except where specifically noted, these restrictions apply to both private and public piers.

► **Deed restriction:** Parcels that are deed restricted from having a pier are not eligible for a new pier. This includes parcels that have previously been deed restricted as well as those restricted during the program.

► **Stream mouth protection zones:** Structures cannot be located in stream mouth protection zones (depicted in Figure 2-1). (These zones are described in more detail below.) However, a parcel located entirely within a stream mouth protection zone may be included in the littoral frontage to be retired on an application with
other littoral parcels for developing a multiple-use pier outside of the stream mouth protection zone (see “Application Process” below).

- **Fish spawning habitat:** Initially, only the ban on new structures in prime feed and/or cover habitat would be lifted, allowing new piers to be approved consistent with the Lahontan Regional Water Quality Control Board’s current rules that only ban new structures in prime spawning habitat. Prior to the opening of prime spawning habitat to new piers, a mitigation bank will be created to restore existing disturbed fish spawning habitat. As part of the process of setting up the mitigation bank, a Mitigation Bank Review Team (MBRT) would be established to provide technical oversight to the initial and future restoration projects associated with the bank, as well as administrative oversight of other elements of the bank. The membership of the MBRT has not yet been established but shall involve all agencies with regulatory authority over spawning habitat in Lake Tahoe. The MBRT would work with the mitigation bank sponsor to establish methodologies for restoration, and scientifically-based monitoring and assessment protocols to ensure that restoration is successful. Upon a determination of success of a fully functioning fish spawning habitat restoration project by the MBRT, TRPA would open prime spawning habitat to new piers. The fish spawning habitat bank would provide restored habitat for habitat lost in constructing new piers in spawning habitat at a ratio of 1.5:1. Parcels located in fish spawning habitat are also subject to seasonal construction limitations (no construction from May 1 to October 15).

- **Public drinking water intakes:** Structures cannot be located within ¼ mile of public drinking water intakes (Figure 2-2). For these parcels, the Preferred Alternative allows the property owner to seek modification of the restriction with preparation of a risk assessment that would be submitted to TRPA and the applicable public water purveyor (proposed Code Section 54.5.A(1)(f)). Based on the risk assessment, the water purveyor shall determine (in consultation with the state health department) whether design changes, limits on allowable uses, alternative construction methods, or other mitigation measures can sufficiently protect the public drinking water supply from unacceptable degradation. The water purveyor will then provide TRPA with a determination as to the parcel’s eligibility, non-eligibility, or eligibility with conditions for pier development. A parcel located entirely within the ¼-mile exclusion area may be included in the littoral frontage to be retired on an application with other littoral parcels for developing a multiple-use pier outside of the ¼-mile setback (see “Application Process” below).

- **Shorezone Preservation Areas:** Lakefront properties included in Shorezone Preservation Areas (SPAs) are not eligible to build new structures within the Shorezone. (Refer to Figure 2-3.) Exceptions to this rule are described below. (See “Shorezone Preservation Areas” below.)

- **Scenic units in non-attainment:** parcels located in shoreline units that are not in attainment with TRPA’s Scenic Thresholds are not eligible for single-parcel, single-use piers but may be allocated multiple-use piers and a single-use pier if another eligible parcel is retired within the same contiguous shoreline character type segment. (This effectively reduces the number of theoretically possible piers in a non-attainment unit by at least 50%) Alternatively, a parcel owner in a non-attainment area could submit an application for a single-use pier if another owner of an eligible littoral parcel in the same scenic unit agreed to deed-restrict that parcel from pier development.

- **Functionality and maximum length:** The maximum length of any multiple-use private pier would be 300 feet; single-use piers could only extend 150 feet. In addition, all piers must be functional, in that they must allow use by boats at low water (i.e., the natural rim of the Lake) and therefore must extend to a minimum of 6,219 feet elevation (4 feet of draft at low water). The combined result of this restriction limits the available parcels eligible for a private pier. Public piers are not subject to this length restriction.

- **Stranded parcels:** “Stranded parcels” are ineligible for a new pier. A stranded parcel is one located landward of (a) a strip parcel (i.e., a shallow, wide parcel that fronts the lakeshore) and that is owned in fee title by any private or public entity, or (b) a strip parcel that has been set aside for public use for any purpose, including
recreation, lake access, or transportation, at the time of subdivision or by subsequent action, and where the upland or stranded parcel owner does not own the underlying fee title to high water. (In the diagram below, Lot D could be a strip parcel and Lots A, B, and C could be considered stranded parcels before the boundary line adjustment.) A stranded parcel is not considered a littoral parcel. Where a public access easement crosses private lands adjacent to the lakeshore but the private landowner owns the underlying land to low water, such parcels shall be considered littoral parcels. However, such recognition will not increase development potential (see discussion below).

**Development potential:** Any boundary line adjustment that allows new littoral ownership cannot increase development potential. This includes quiet title or quit-claim adjustments, which require TRPA review and approval as a project consistent with existing requirements for boundary line adjustments in the TRPA Code. Although a new littoral parcel may become eligible for development associated with the original parcel and therefore can be part of a multiple-use pier application, parcel owners can only exercise the one original development right among the parcels involved in the adjustment, regardless of the number of parcels involved (see example below). Only those parcels with a confirmed development potential under existing rules (as of 1987) have littoral pier eligibility that may be allocated to the new littoral parcels.

For example, see the scenario depicted in the diagram below. The original lot pattern has one littoral parcel (Lot D) fronting three non-littoral parcels (Lots A, B, and C). After a hypothetical lot line adjustment, Lot D has been absorbed by Lots A, B, and C. Each of these three lots is now a littoral parcel. However, only one of these lots may become eligible for pier development because only the one original development right that belonged to Lot D can be exercised.

**Setbacks and Stream Mouth Protection Zones**

A new pier must be located at least 50 feet from any other pier, measured from the pier head. There is no minimum setback for piers from adjacent property boundaries, but TRPA would have the discretion to work with property owners to choose locations for new piers that would minimize environmental impacts.

The Preferred Alternative would not allow construction of new Shorezone structures within the mapped protection zones around stream mouths that have migratory fish habitat (Figure 2-1). These zones generally reflect the ability of each creek to meander within a given range and are consistent with TRPA’s intent to restore the natural function of streams as part of the Lake Tahoe Environmental Improvement Program. The mapped stream mouth protection zones identify various widths, ranging from less than 100 feet to 2,000 feet, within which no new structures would be permitted. This approach differs from the previously designated 400-foot setbacks (200 feet in each direction measured from the stream centerline measured at an elevation of 6229.1 feet) (listed in Code
Chapter 54.4.A[2]), which assumed that stream mouths are located in the center of their meander area. The mapped protection zones shown in Figure 2-1 may be adjusted, in response to studies of historic aerial photographs and site-specific information about fluvial geomorphology, to reflect the actual meander range.

**PIER DESIGN STANDARDS**

The following design standards apply to new piers as well as pier expansions.

**PRIVATE SINGLE-USE PIER**

Design standards for single-use piers are proposed so that new piers reasonably minimize adverse impacts on scenic quality associated with new structures. Design of single-use private piers could vary but would not be permitted to exceed the maximum pier design (see Figure 2-4). Primary emphasis would be on visible mass (the area of the structure visible at a distance of 300 feet from the new pier and from a composite of views). All new single-use piers would be required to comply with design standards as a condition of approval.

Under the standard maximum dimension, a private single-use pier would be 150 feet long and 6 feet wide, with up to 220 square feet of visible mass allowed. The maximum pierhead would be 30 feet long by 10 feet wide. Piles must be placed at least 15 feet on center, and pile length would not extend above the deck. Single-pile piers are preferred. The Preferred Alternative allows design options besides single-pile piers in areas where single-pile piers are not feasible because of engineering and safety considerations; in these cases, the pier applicant must provide an approved engineering analysis at the time of application. Maximum dimensions for a single catwalk are 30 feet long by 3 feet wide. The maximum single-use pier would extend perpendicular to the shoreline and could not include doglegs, L’s, or other directional deviations. In no case would the pier be permitted to extend beyond 150 feet, the pierhead line, or elevation datum 6,219 feet, whichever is less. Where construction of a functional pier is not possible due to this length restriction (e.g., steep drop offs), the pier may extend into the lake only a sufficient length to allow it to be functional. In this circumstance, additional width may be allowed, provided that overall, the pier does not exceed the allowable visible mass.

Owners of new single-use piers must mitigate the allowed visible mass of up to 220 square feet on-site (that is, on the parcel served by the pier) at a ratio of 1 square foot of impact to 1 square foot of scenic mitigation (i.e., at a 1:1 ratio). If the parcel is located in a scenic unit in attainment of Scenic Thresholds, no additional mitigation is required. In a non-attainment unit, a single-use pier could be approved only if a second eligible parcel within the same scenic unit is deed-restricted and with 1:1.5 scenic mitigation. For a private single-use pier that exceeds a visible mass of 220 square feet to accommodate a boat lift (see “Boat Lifts” below), the property owner must mitigate the additional visible mass at a ratio of 1:1.5. Mitigation of the scenic impact of new structures must occur first in the shorezone of the project; once shorezone possibilities are exhausted, mitigation may occur in the project area shoreland Mitigation may be either removal or screening of visible structure or use of the Visual Assessment Tool described in Appendix 2 (taken from Appendix H of the Design Review Guidelines, previously Appendix J of the DEIS). Appendix 2 also provides contrast rating criteria. For the Preferred Alternative, all properties involved in a project must achieve a contrast rating of 25.

**PRIVATE MULTIPLE-USE PIER**

By using the number of parcels and length of retired littoral frontage as the primary criteria for approval of pier applications (see “Application Process” below), TRPA seeks to encourage owners of separate private parcels to join together to build and use consolidated multiple-use private piers (with the associated benefits of removing existing structures, retiring shoreline from eligibility, and voluntarily deed-restricting parcels without piers). As an added incentive, the Preferred Alternative would also allow more flexible design standards for multiple-use piers.
All new multiple-use piers would be required to comply with design standards as a condition of approval. Multi-use piers may be longer than 150 feet and have a longer pierhead in order to serve additional boats. The maximum visible mass allowed for a multiple-use pier serving two parcels would be 280 square feet. The maximum visible mass for multiple-use piers serving more than three parcels may have more than 280 square feet of allowable visible mass to accommodate potentially longer pier length, but only that which is necessary to gain the additional length. Owners must mitigate visible mass of these piers at 1:1 in attainment scenic units and at 1:1.5 in non-attainment scenic units. The maximum multiple-use pier would extend perpendicular to the shoreline and could not include doglegs, L’s, or other directional deviations.

Piers that serve three or more littoral parcels would be permitted to extend to a maximum of 300 feet, the pierhead line or 6,219 feet elevation, the minimum length necessary to gain navigable water. Where construction of a functional pier is not possible due to this length restriction (e.g., steep drop offs), the pier may extend into the lake only a sufficient length to allow it to be functional. In this circumstance, additional width may be allowed, provided that overall, the pier does not exceed the allowable visible mass.

Owners of new multiple-use piers located in a scenic unit in attainment of Scenic Thresholds must mitigate the allowed visible mass of up to 280 square feet on-site (that is, on the parcels served by the pier) within the Shorezone at a ratio of 1:1. In a non-attainment unit, only a multiple-use pier could be approved (or where a second eligible parcel is deed restricted as described above), and the visible mass (up to 280 square feet) must be mitigated at 1:1.5. For a private multiple-use pier that exceeds a visible mass of 280 square feet to accommodate a boat lift (see “Boat Lifts” below), the property owner must mitigate the additional visible mass at a ratio of 1:1.5; however, the property owner may accomplish the scenic mitigation off-site in the Shorezone or shoreland anywhere within the same scenic unit and using the same strategies described above for single-use piers. All parcels involved in a multiple-use pier must meet baseline scenic attainment (25 contrast ratings).

**BOAT LIFTS**

The Preferred Alternative gives property owners the flexibility to obtain a boat lift in exchange for retiring a permitted buoy. A property owner who is eligible to obtain or already has a current buoy permit, including payment of the annual fee, would be permitted to permanently retire the buoy or buoy option in exchange for a single boat lift on a single-use pier. Property owners may retire up to two permitted buoys for two boat lifts on a multiple-use pier. The maximum allowable boat lift size is 12,000 pounds. If a property owner can demonstrate that a buoy cannot feasibly be approved on a parcel because of buoy placement restrictions, the property owner’s unusable buoy option may still be “traded” for a boat lift (including payment of the annual fee). Each parcel remains limited to two moorings and a boat lift is considered a mooring.

Any boat lift considered for approval under this buoy exchange program is subject to all pier design and scenic standards. A 6,000-pound boat lift on a new or conforming pier (including the visible mass of the boat) could add up to 174 square feet of visible mass that the property owner must mitigate at 1:1.5 within the same scenic unit; similarly, a 12,000-pound boat lift adds up to 348 square feet of visible mass. A boat lift added to an existing non-conforming pier must be mitigated at 1:1.5 from a Shorezone structure within the same parcel and within the same visual mass as the existing structure.

**PUBLIC PIERS**

The Preferred Alternative would not impose the private pier design standards on public pier facilities; these facilities would be developed on a case-by-case basis and would be required to meet design standards that account for the established public need at the specific location. Public piers would be subject to the same density requirements as private piers. Owners must mitigate visible mass of public piers at 1:1 in attainment scenic units and at 1:1.5 in non-attainment scenic units. Public Shorezone structures would undergo the appropriate level of environmental review and environmental documentation under applicable ordinances, including TRPA’s master
planning process for public marinas. Where environmental impacts requiring mitigation are identified, property owners must mitigate those impacts within the same scenic unit.

**Density Criteria**

In the Preferred Alternative, the maximum number of piers allowed along any shoreline would be based on average density standards for each contiguous length of a particular Shorezone character type within the scenic unit. These Shorezone character types are categorized as visually modified, visually dominated, visually sensitive, or naturally dominated (see Figure 2-5).

- “Visually modified” and “visually dominated” Shorezone character types (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 non-deed-restricted shoreline.

- “Visually sensitive” Shorezone character types (highly scenic or vulnerable landscapes, including sandy beaches, that exhibit the influence of human modifications) would be allowed an average of no more than one pier per 300 feet of non-deed-restricted shoreline.

- Shoreline categorized as “naturally dominated” (such as natural-appearing landscapes or historical/traditional locations in highly scenic locations) includes areas in stream mouth protection zones and areas designated as Shorezone Preservation Areas (SPAs). Naturally dominated shoreline would be excluded from consideration for any new piers and from the density calculations for those Shorezone character types.

These allowable average densities include both public and private piers. No new piers would be allocated to a particular length of Shorezone character type once that area reached or exceeded the allowable density, unless piers were removed elsewhere within the same contiguous length of that Shorezone character type. Repairs, expansions, and modifications to piers could be allowed under the conditions described below.

Alternative 6A, described in the Final EIS, would have allowed a total of 537 parcels to build up to 269 new private piers at full buildout. With the density change for visually sensitive lands from one per 200 feet to one per 300 feet, the Preferred Alternative would have 528 parcels eligible for 261 new piers. With the addition of the maximum length/pier functionality rule, and if parcels in areas served by a homeowners’ association pier are deducted from the total, 432 eligible parcels could build up to 171 piers. Finally, when only multiple-use piers are allowed in scenic non-attainment areas, and single use piers only in scenic attainment areas, the 267 eligible parcels could build up to 128 new private piers in the Preferred Alternative provided that current scenic attainment areas remain the same.

The approximate remaining pier eligibility with implementation of the Preferred Alternative for each segment of Shorezone character type is shown in Figure 2-5. The numbers are calculated based on TRPA’s GIS database at the time of document preparation. Remaining pier eligibility in a particular character type of a scenic unit would be verified based on the most current information in TRPA’s geographic information system (GIS) database after an application is submitted.

**Lake Tahoe Public Access Fund**

In the DEIS and SDEIS, as well as in other studies, TRPA has determined that adverse recreation and public access impacts are associated with the construction of new piers in Lake Tahoe. New pier structures can also obstruct lateral public pedestrian access in the area between high and low water. Pier structures can limit or alter the ability of individuals to engage in forms of recreation dependent on near-shore access, including swimming, canoeing, kayaking, and top-line fishing, and to navigate the near-shore area where public access is controlled or held in trust under State laws. The Preferred Alternative would offset these impacts consistent with the TRPA Goals and Policies through the payment of a per-pier fee to the Lake Tahoe Public Access Fund (LTPAF). The
fund would assist TRPA in meeting the Recreation and Public Access Thresholds by providing the means to contribute financing toward significant public access improvement projects in conjunction with other public agencies in the Lake Tahoe Region.

The LTPAF shall be a separate fund administered by TRPA with guidance from an advisory board, consisting of the Executive Director of TRPA, and representatives of a cross-section of interested groups and agencies including, but not limited to the environmental community, lakefront property owners, the California Tahoe Conservancy, and the Nevada Department of Conservation and Natural Resources. This advisory board would make recommendations to TRPA annually on projects that should receive LTPAF funding, based on priorities that would be established by the board beforehand in relation to TRPA’s recreation and public access goals. These priorities would be as follows:

(a) funds to facilitate acquisition by public agencies of public access to the lake and lands on the lake;
(b) funds to construct or modify public access facilities, with emphasis on non-motorized recreational access; and
(c) funds to other projects that demonstrably improve public recreational access to the Lake and on the Lake.

The funds deposited in the LTPAF would be available for use only by public agencies. Because the fund would be administered by TRPA, donations to the fund (aside from the required new pier or pier expansion fee described below) may be accepted as tax-deductible contributions.

Each new private pier and private pier expansion application accepted by TRPA would require a fee to be contributed to the LTPAF to offset the recreation and public access impacts caused by construction of the pier. Existing public piers that are converted to private use must also pay the required fee for new private piers into the LTPAF. The fee for new private piers would be $100,000 starting with the first year of implementation of the new Shorezone Ordinances. For private pier expansions, $20 per added square foot shall be paid to the LTPAF. These fees would be adjusted annually based on the regional consumer price index. The amount of the fee is based on estimation of the costs of providing equivalent replacement value for recreation and public access by removing a pier from a developed parcel and restricting development on the parcel with an easement (see Appendix 4, “Lake Tahoe Public Access Fund”). No more than 10% of each payment into the LTPAF (i.e., each fee paid for a new or expanded pier or other contribution made to the fund) may be used for fund administration or TRPA staff expenses.

Pier Maintenance, Repair, and Replacement

The Preferred Alternative includes revised provisions for the review of maintenance, repair, and in-kind replacement of piers (proposed Code Sections 53.3, 53.4, and 54.7.A):

(a) In general, the maintenance, repair, or partial in-kind replacement of a pier that is limited to its existing dimensions and footprint, and occurs above the waterline, with no disturbance to the backshore, lake substrate, or Tahoe yellow cress habitat, would be exempt from TRPA review.

(b) TRPA would review as projects any maintenance and repair activities that are below the waterline or that involve Shorezone disturbance, change the existing dimensions of the structure, or are full in-kind replacements (although the latter class of activities would be reviewed under a streamlined process).

Pier Modification and Expansion

Proposed Code Sections 54.7.B and 54.7.C describe the permitting and review requirements for, and distinctions between, pier modification and expansion. Modification of an existing pier structure involves a change in dimension, footprint, or substrate disturbance that would be accomplished within the confines of the pier’s existing visible mass. The modification would be required to result in a net benefit to any Environmental Threshold (excluding Recreation) and have no detrimental effect on any other Threshold. The necessary improvements would vary based on the
circumstances of the property but could include visual compatibility with the surrounding environment, removal of barriers to littoral transport, and improvements to fish spawning habitat. Modification of an existing nonconforming structure would require improvement of the structure’s conformity with development standards. Existing nonconforming structures would be eligible for modification but not expansion unless such expansion improves conformity with development standards. Boat houses are nonconforming structures that may be expanded only under the strict criteria described below.

Existing piers meeting the revised definition of a pier (which adds a functionality component) may expand to the maximum allowable visible mass. To be eligible for expansion of an existing pier, a parcel must have current BMPs in place that are properly maintained; have a 25 contrast rating or meet the Visual Magnitude/Contrast Rating Table requirements (as modified for additional lake frontage) of Appendix H of TRPA’s Design Review Guidelines (Appendix 2 of this FEIS), including visual breaks; and have a visible mass of no more than 220 square feet for a single-use pier or 280 square feet for a multiple-use pier (excluding boat lifts).

Expansion of an existing nonconforming pier would be allowed only for an expansion of an existing boat house where the expansion (a) does not increase the functional capacity of the boat house, (b) increases the contrast rating of the structure, and (c) is the minimum expansion necessary to accomplish scenic quality improvement.

Any expansion or modification of a pier that disturbs substrate in fish spawning habitat would be subject to the fish spawning habitat restoration requirement of 2:1 for any littoral substrate disturbance. This restoration may be done individually on-site or through the fish spawning habitat restoration bank proposed for establishment as part of the Preferred Alternative. Pier expansions also require a payment of $20 per added square foot to the LTPAF as described above.

**PIER RELOCATION AND TRANSFER**

A pier may be relocated within the same parcel, or to the property line of that parcel in the case of a private multiple-use pier. A relocated pier must meet the same requirements as a new pier, including scenic requirements, except that the property owner would not be required to pay the LTPAF fee, unless it is also an expansion.

A pier may be transferred from one parcel to another. This would occur when a pier is torn down on one parcel and a new pier is rebuilt on a different parcel. The rebuilt pier must meet the same requirements as a new pier (including density requirements if transferred to a different scenic unit), except that the property owner would not be required to pay the LTPAF fee. When a pier is transferred, the old pier must be fully removed and the site restored. The parcel removing the pier shall be deed-restricted from developing a pier in the future. Both the sending and receiving parcels must meet scenic requirements (including a 25 contrast rating) and BMPs.

**PUBLIC PIERS**

The 10 allocated public piers that are freely accessible to the general public would not be subject to the private pier allocation system, pier length restrictions, or the LTPAF fee, but would be subject to allowable densities, scenic and spawning habitat mitigation, and setbacks. Only 10 public piers will be allowed under this alternative. Any public pier permitted under this provision may not be converted to a private pier. An existing (i.e., existed prior to the implementation of this program) public pier that is converted to a private pier would be subject to payment of the LTPAF fee. Private or publicly owned piers that have any public access restrictions, other than reasonable rules to protect public safety and welfare, are not considered public piers. Public piers would be subject to the new development standards for public facilities, as described above.

New piers associated with the development of a public waterborne transit system for Lake Tahoe will be identified in the future, possibly as part of the Regional Plan Update being prepared as part of Pathway, and would be subject to further environmental review and documentation. Development standards tailored to the needs of the transit system would be developed specifically for these piers and potential environmental impacts would be studied.
BUOYS

BUOY PERMITTING

The total number of buoys allowed at Lake Tahoe with the Preferred Alternative, including all private and public buoys, is 6,316; however, the number of buoys on Lake Tahoe would be capped at 4,454 until the Blue Boating Program is adopted and implemented. This number is based on the number of eligible littoral parcels, location standards, and potential new and expanded buoy fields described below (see Tables 2-1 and 2-3). The latest inventory of buoys present on Lake Tahoe was completed in 2006 and identified a total of 4,477 buoys. This figure is nearly identical to that established in the last survey, completed in 2002, which identified a total of 4,454 buoys (3,440 private and 1,014 public) and is the number used throughout this analysis. The difference in buoy numbers between the 2002 and 2006 surveys is less than one-half of one percent. Neither survey distinguished between buoys with permits from TRPA, buoys with permits from other agencies, and unauthorized buoys. For this reason, it is presently not known how many unauthorized buoys are present at Lake Tahoe, or how many of these would be eligible for permits under the Preferred Alternative.

To reach the 4,454 allowable permitted buoys, TRPA would first recognize all buoys previously permitted by TRPA. Then, those buoys that have been permitted by other agencies with appropriate jurisdiction would be permitted. Finally, those buoys whose owners can clearly demonstrate their existence in the Lake prior to 1972 shall be permitted by TRPA. All other lakefront owners may apply for TRPA permits, up to the 4,454 total allowable, until TRPA successfully implements the Blue Boating Program. At that point, TRPA may permit buoys up to the maximum allowable of 6,316.

Under the Preferred Alternative, all buoys on the lake would require up-to-date permits from TRPA and the other agencies with jurisdiction. The Code amendments that constitute the Preferred Alternative provide processes and location standards for TRPA to permit new and existing, already-permitted buoys in accordance with the proposed standards. Under certain circumstances, TRPA would recognize existing buoys that have not previously been given permits by TRPA (see “Recognition of Existing Buoys” below). Permitting fees would vary based on the complexity of the permit evaluation; annual buoy fees would be paid by buoy owners for each buoy regardless of its new or existing status. To assist TRPA in efforts to enforce buoy permitting and location, TRPA would seek to obtain buoy enforcement/removal authority from the California State Lands Commission in that state and from the Nevada Department of Wildlife in Nevada. These standards and requirements are described in more detail below.

LOCATION STANDARDS FOR NEW BUOYS

The Preferred Alternative requires the owner of a littoral property to obtain permits for buoys before placing them in the lake. For new buoys, the Preferred Alternative allows a property owner to obtain permits for up to two buoys for every private littoral parcel with 50 feet or more of littoral shoreline and no more than one buoy for parcels with less than 50 feet of littoral shoreline. To ensure safety of surrounding boats, buoys must be located a minimum of 25 feet from adjacent property boundaries as measured from lakeward-extended boundary lines or, for a parcel with less than 50 feet between the extended property lines, 50 feet from any other buoy, and within the extended property lines. Private buoys may not be located more than 350 feet from high water (i.e., shoreline). Temporary movement of buoys may be allowed during periods of low water conditions, but in no case can they extend beyond 6,219 feet elevation.

Under current law, a TRPA buoy permit is not valid without a permit from the applicable state lands department as well. Conversely, buoy permits from the California State Lands Commission (California State Lands) or Nevada Division of State Lands (Nevada State Lands) or the U.S. Army Corps of Engineers (USACE) require the property owner to also obtain a buoy permit from TRPA. As part of the proposed Shorezone Ordinance amendments, TRPA is working with these agencies to create a streamlined buoy permitting process that would simplify the requirements for obtaining these multiple permits. (See “Streamlined Buoy Permitting Process” below.)
In areas of converging or diverging property lines, such as coves and points, a littoral parcel would be eligible for at least one buoy even if the buoy could not be located within the lakeward-extended property lines, as long as the buoy is within 350 feet of high water and at least 50 feet from other buoys in all directions. TRPA shall determine the maximum number of buoys allowed in these areas based on these location standards.

In common areas controlled by homeowners associations or other associational entities, or on public properties outside SPAs, the number of allowable buoys would be calculated as a grid based on the length of the property frontage, the 350-foot offshore limit, the 25-foot setback from extended property lines, and the minimum distance of 50 feet from other buoys. Actual buoy placement may exceed the 350-foot limit in these buoy fields to allow access to navigable water. Regardless of these rules, buoy fields subject to homeowners association rules would not be allowed more buoys than homes served.

Each homeowners association must decide to either (a) comply with these rules for the entire homeowners association or (b) allow individual owners to obtain buoys in accordance with the rules for private littoral property owners. In other words, individual littoral property owners cannot be eligible for buoys for their private parcel and also have buoys located off their parcel that are available to the homeowners association.

At public marinas, the number of buoys permitted shall be determined through the master planning process, but shall be subject to the same setbacks as those required for homeowners associations or other associational entities.

**RECOGNITION OF EXISTING BUOYS**

Based on input from stakeholder groups, members of the public, and the Governing Board, TRPA has determined that the proposed Shorezone Ordinance amendments should include simplified provisions for recognition of existing buoys. The criteria for recognition and the accompanying conditions are described below. Table 2-3 describes the criteria and conditions for each category.

For littoral properties with existing buoys, TRPA would recognize buoys based on presentation of (a) a valid buoy permit issued by a federal or state agency with appropriate jurisdiction (i.e., USACE, California State Lands, or Nevada State Lands) or (b) clear evidence of the existence of the buoy(s) prior to 1972. Under these circumstances, TRPA would recognize up to two previously permitted buoys for a parcel with less than 50 feet of littoral frontage and up to three buoys for a parcel with 50 feet or more of frontage. Buoys that do not meet these recognition criteria may be permitted up to the limit for new buoys (one buoy on a parcel less than 50 feet wide, two buoys for parcels 50 feet or wider). Littoral property owners with TRPA buoy permits would be eligible for recognition of all of their buoys originally permitted by TRPA.

Recognized buoys would be required to conform to the location standards for new buoys described above, unless re-location that may be required would create unnecessary additional environmental impacts, and the existing buoy location does not unreasonably interfere with buoys being located by adjacent property owners. In any case, buoys must be located at least 50 feet from any other buoy or structure. Payment of the annual buoy fee would still be required for all buoys. Buoys of non-littoral property owners placed in the lake before 1972 would be recognized only after the applicant has received authorization from the applicable California or Nevada state agency with jurisdiction at Lake Tahoe.

**BUOY FEES**

TRPA buoy permitting to place an individual buoy in water adjacent to a private littoral parcel would require a TRPA permit and an initial application fee of $500 for the first buoy. For parcels eligible for more than one buoy, the fee for an additional buoy would be $1,000; the extra $500 fee for the additional buoy would provide startup costs for establishing a TRPA watercraft and buoy enforcement program. These fees apply to new and all existing buoys that do not already have a TRPA permit. Recognition of existing buoys with valid TRPA permits would not
### Table 2-3
Buoy Recognition Program

<table>
<thead>
<tr>
<th>Type of Existing Documentation</th>
<th>Reference Date</th>
<th>Parcel Width at High Water</th>
<th>Proof of permits or buoy(s) required?</th>
<th>Maximum No. of Buoys per Littoral Parcel (a)</th>
<th>Initial Application Fee Required?</th>
<th>Annual Fee Required?</th>
<th>Buoy Recognition Application Fee?</th>
<th>Eligible for Streamlined Permit Process?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Established Littoral Ownership</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State/fed permit</td>
<td>Any date</td>
<td>&lt; 50 feet</td>
<td>Yes, permit</td>
<td>2 (c)</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; 50 feet</td>
<td>Yes, permit</td>
<td>3 (c)</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>No permit, proof of existence (a)</td>
<td>pre-1972</td>
<td>&lt; 50 feet</td>
<td>Yes, buoy</td>
<td>2 (c)</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; 50 feet</td>
<td>Yes, buoy</td>
<td>3 (c)</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>TRPA permit</td>
<td>Any date</td>
<td>Any width</td>
<td>Yes, permit</td>
<td># permitted (c)</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Not needed</td>
</tr>
<tr>
<td>No permit</td>
<td>Any date</td>
<td>&lt; 50 feet</td>
<td>No</td>
<td>1</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt; 50 feet</td>
<td>No</td>
<td>2</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Homeowners Associations and Similar Associational Bodies</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State/fed permit</td>
<td>pre-1972</td>
<td>Any width (a)</td>
<td>Yes, permit</td>
<td># permitted</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>No permit</td>
<td>pre-1972</td>
<td>Any width (a)</td>
<td>No</td>
<td>New code</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>TRPA permit</td>
<td>Any date</td>
<td>Any width (a)</td>
<td>Yes, permit</td>
<td># permitted</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Non-Littoral Property Owners (d)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State/federal agency permit or lease or proof of existence (a)</td>
<td>pre-1972</td>
<td>Any width</td>
<td>Yes</td>
<td>Total buoys allowed per littoral parcel</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Note: Buoy recognition program does not apply to marina/commercial operations; additional placement of buoys in these locations is subject to environmental review and handled on a case-by-case basis.

- **Proof of buoy existence** may consist of assessor's records, dated clear aerial photographs, other legal documentation, affidavits, or photographs with clear reference features.
- **Maximum number of buoys:** is a limit per littoral parcel, regardless of buoy ownership.
- **Maximum number of buoys per category only:** if previously permitted or proven through buoy recognition program or TRPA permit.
- **Boys of non-littoral property owners placed in the lake before 1972 shall be recognized only with proof of current lease or permit from either California or Nevada state agencies with jurisdiction at Lake Tahoe.
require payment of the application fee. For permitting of other buoys, an additional buoy recognition fee may be charged to cover the additional administrative staff effort required to review the application.

An annual buoy fee of $175 would be charged for each private buoy and $100 for each public buoy in a marina buoy field; the funds would be allocated among several programs with 50% for watercraft and buoy compliance and enforcement, 30% for water and air quality monitoring, and 20% for scenic mitigation that would go into the Shoreland Scenic Mitigation Fund, to be spent on scenic quality improvements within the shoreland on public lands. The annual fee would be required for every buoy on the lake and would be in addition to any Nevada or California State Lands lease payment, where applicable.

Homeowners’ association buoy fields would require a single consolidated permit for all included buoys, and the initial application fee would be $500 per buoy (unless the buoy field already has a current, valid TRPA permit). The number of buoys allowed in a homeowners association buoy field would be determined by the spacing and size of the allowable grid (see “Buoy Permitting and Recognition” above) or by the number of dwelling units served by the association, whichever is less. The homeowners association would be responsible for the annual fee of $175 per buoy.

The property owner must continue to pay the annual buoy fee under the exchange program for boat lifts (as described in “Boat Lifts” above).

The amount of the annual buoy fee would be reviewed every 5 years and may be adjusted to reflect actual costs of enforcement and mitigation. The initial application fee would be reviewed as needed. Any increase in either of these fees could not exceed the rate of the regional consumer price index.

**STREAMLINED BUOY PERMITTING PROCESS**

To the extent possible, TRPA is working to develop a consolidated process for buoy permitting. Its goal would be to consolidate fees, leases, requirements, and authorizations of TRPA and other agencies with jurisdiction (i.e., California State Lands, Nevada State Lands, USACE, and U.S. Coast Guard) to make it easier for lakefront property owners to bring new and existing buoys into legal compliance. In developing this consolidated, “one-stop shopping” approach to the permitting process, no agency would be expected to devolve existing authorities or change existing legal requirements. Although this streamlined process may not be in place immediately following approval of the Shorezone Ordinance amendments, TRPA remains committed to working toward a simplified process involving as many of the applicable agencies with jurisdiction as possible.

**MAINTENANCE OF BUOY FLOATS AND CHAINS**

Buoy floats and chains must be inspected and maintained to prevent loss or damage to boats. To assure this, buoy owners must produce proof of inspection and any required maintenance or replacement deemed necessary by the inspector when applying for a TRPA permit or submitting annual buoy fees, as applicable. Such inspections are required at least every 2 years.

**OTHER FACILITIES**

**BREAKWATERS, JETTIES, ROCK CRIB PIERS, AND SHEET PILE PIERS**

No new public or private breakwaters, jetties, rock crib piers, or sheet pile piers (or other structures of this type) would be permitted in the Lake Tahoe Region except as part of a habitat restoration project. This prohibition also precludes the transfer or relocation of such structures.
Expansion of such structures in public marinas may be approved through the TRPA marina master plan process only on the basis of findings that there would be no interruption of littoral processes. No expansion of private structures of this type would be permitted.

Modifications to these structures, either public or private, may be made only if the findings can demonstrate a net environmental benefit.

Replacement of private sheet pile or rock crib piers with a pier built to conform to the new design standards is allowed and encouraged. Replacement of public sheet pile or rock crib piers at public marinas may be considered in kind by permit. Jetties and breakwaters may be replaced only when the findings can demonstrate that doing so would improve littoral processes.

In-kind repair of minor amounts of each of these structures may be authorized by a qualified exempt declaration and demonstration of compliance with the shoreland scenic ordinances. Any in-kind repairs exceeding minor amounts of each such structure may be authorized by permit only when a clear environmental benefit can be demonstrated. The Executive Director would establish guidelines for determining a minor amount of each structure.

**SHORELINE PROTECTIVE STRUCTURES**

As described in proposed Code Section 54.5.C(3), shoreline protective structures may be approved to prevent erosion in the backshore under limited conditions:

- If structures in the backshore or Environmental Threshold values would be enhanced by construction of the structure;
- If the protective value of the structure offsets the adverse environmental effects of constructing and maintaining the structure;
- If the protective structure is constructed to be sloping and permeable (unless such construction is not feasible);
- If the structure has been designed to avoid accelerating backshore erosion on adjacent properties;
- If the structure would prevent movement of backfill materials in the lake; and
- If the structure is constructed of natural materials, where feasible, and blends with the surrounding backshore.

**FENCES**

No fences may be constructed below the high-water line (6,229 feet elevation) unless findings can be made that clearly demonstrate a benefit to public health and safety. In those instances, fences must be adjustable to the actual water level of the lake and may not extend into the lake (i.e., the existing water level) at any time. Legally existing fences extending below high water may remain, provided they are adjustable, do not unreasonably block legal public access, and do not extend beyond the actual water level of the lake (i.e., the existing water level) at any time.

**BOAT RAMPS**

The Preferred Alternative would allow the construction of up to six new public boat ramps but no new private boat ramps. These structures would be required to be located outside of SPAs and fish spawning habitat, at locations where bathymetric data support such facilities, and where frequent dredging would not be required (e.g., outside of shallow shelf areas). Expansions or modifications to ramps that disturb substrate in fish spawning...
habitat would be subject to the fish spawning habitat restoration requirement of 1.5:1 for any littoral substrate disturbance. This restoration may be done individually or through the fish spawning habitat restoration bank proposed for establishment with the Preferred Alternative.

In fish spawning habitat, an existing private boat ramp may be converted to a pier that meets all other criteria for new private piers (such as density and scenic standards), with the exception of paying the LTPAF fee. Such a conversion must include complete removal of the boat ramp and restoration of the spawning habitat, and the project must demonstrate a net environmental benefit. Because of the concurrent removal of another Shorezone structure, the newly located pier would not be included in the 5-per-year application process.

Existing private boat ramps may be transferred or relocated for public use only, and may only be located outside fish spawning habitat. If a private boat ramp is converted to a pier, the ramp cannot be relocated or transferred.

**FLOATING PLATFORMS**

With the Preferred Alternative, an approved floating platform could be substituted for one buoy; however, boats may not moor on a floating platform or its anchor. A floating platform is defined as a free-floating structure that is not attached to the backshore. (A floating pier, by contrast, is attached to the backshore and extends lakeward.)

**FLOATING PIERS**

Floating piers may only be allowed in the lake beyond the area of influence of littoral processes. Mechanically lifted piers would be allowed only in deep water off of a shelf; these piers may include pilings above the deck, but remain subject to restrictions on total visible mass.

**BOAT SLIPS**

The Preferred Alternative would not allow new private boat slips; however, up to 235 new public boat slips could be permitted. Public slips are those slips that are available for rent or use by the general public. Private boat slips may be transferred to public use, but public boat slips may not be converted to private use. Similarly, private boat slips may be transferred only for use as public slips. Expansions or modifications to slips that disturb substrate in fish spawning habitat would be subject to the fish spawning habitat restoration requirement of 2:1 for any littoral substrate disturbance. This restoration may be done individually or through the established fish spawning habitat restoration bank.

**SCENIC REQUIREMENTS**

Existing shoreland structures (such as residences and garages) must be brought into compliance with the Code of Ordinances’ scenic standards existing at the time of application as a condition of approval for addition, modification, or expansion of a pier. The determination of compliance with shoreland scenic ordinances may be based on attainment of a 25 contrast rating score or compliance with TRPA’s visual dominance curve and meeting the Visual Magnitude/ Contrast Rating Table requirements (as modified for additional lake frontage), including visual breaks. (These requirements are described in detail in Appendix 2, which was previously included as Appendix J of the 2004 DEIS.) Alternatively, a pier applicant (whether an individual or a group) may choose to have compliance determined using the current Shoreland Ordinance in the Shorezone area with the visual dominance curve. The Preferred Alternative clarifies that a baseline scenic assessment and scenic mitigation are not required for permitting and placement of buoys.

To protect the scenic attributes of the Shorezone, pier additions, modifications, and expansions would be required to meet minimum design standards as established by TRPA (described above). Only multiple-use piers (or single-use piers where another parcel has been deed-restricted) could be approved. The design standards, included in the Code amendments (Appendix 1), include maximum width, maximum length (to the shorter of 330 feet, the pier
head or 6,219 feet elevation), profile, color guidelines, lighting, and allowable ancillary facilities (such as boat lifts). Applicable design standards would vary by type of shoreline, backdrop, littoral drift concerns, and legal Shorezone access. Piers that are built or modified to less than the maximum allowable standards for length, width, and mass under the Code may qualify for additional amenities, such as a locker, bench, or additional width, as prescribed in the design standards.

As described in “Piers” above, the scenic mitigation requirements for new structures and for repairs, expansions, and modifications are determined by the visible mass of the structure (or change to the structure) (Table 2-4). The maximum visible mass would be 220 square feet for a private single-use pier and 280 square feet for a private multiple-use pier serving two parcels, with the exception of a boat lift. The 220 square feet of visible mass of a new single-use pier must be mitigated at 1:1 (or 1:1.5 if located in a nonattainment scenic unit) from first the Shorezone and then the shoreland on the same parcel. New multiple-use piers are allowed 280 square feet of visible mass to be mitigated first in the Shorezone and then the shoreland at the same ratios as single-use piers. The visible mass of additional boatlifts for conforming piers must occur in the shorezone of the same scenic unit at a 1:1.5 ratio regardless of the attainment status of the unit. The visible mass of additional boatlifts on nonconforming piers must be mitigated on that structure.

Scenic banking of visible mass would be permitted under the proposed Code amendments (Section 54.6.E). Visible mass on littoral parcels may be removed and banked, with completion of a scenic assessment. The resulting banked visible mass may only be used within the same scenic unit.

<table>
<thead>
<tr>
<th>Structure Type</th>
<th>Amount of Structure (visible mass)</th>
<th>Mitigation Ratio Attainment/Non-attainment</th>
<th>Mitigation Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private single-use pier</td>
<td>Up to 220 square feet</td>
<td>1:1</td>
<td>Shorezone or shoreland, same scenic unit, same parcel</td>
</tr>
<tr>
<td>Private multiple-use pier</td>
<td>Up to 280 square feet</td>
<td>1:1</td>
<td>Shorezone or shoreland, same scenic unit, same parcel(s)</td>
</tr>
<tr>
<td>Public pier</td>
<td>As approved</td>
<td>1:1</td>
<td>Shorezone or shoreland, same scenic unit</td>
</tr>
<tr>
<td>Adding boat lift to conforming pier</td>
<td>174 square feet for 6,000 lb lift; 348 square feet for 12,000 lb lift</td>
<td>1:1.5</td>
<td>Shorezone, same scenic unit</td>
</tr>
<tr>
<td>Adding boat lift to non-conforming pier</td>
<td>174 square feet for 6,000 lb lift; 348 square feet for 12,000 lb lift</td>
<td>1:1.5</td>
<td>Same parcel, same visual mass</td>
</tr>
</tbody>
</table>

**PROTECTION OF PUBLIC ACCESS**

As described in proposed Code Section 54.4.B, new, modified, or expanded Shorezone structures that cross public easement or public trust areas along the shoreline of Lake Tahoe would not be permitted to unreasonably impair legal, lateral, public recreational access. Pier design standards would provide for legal, lateral public access over, under, or around the structure as appropriate for each property. Existing structures would be required to come into compliance with legal public access standards by removing obstacles if feasible, or by including legal public access in the design to the extent feasible when undertaking any modification or expansion.

Where ongoing trespass issues are identified, TRPA would encourage those agencies responsible for public access to public lands or easements to work with private homeowners to resolve such issues, and would facilitate resolution of such situations by considering appropriate access deterrent methods as well as provision of alternative public accessways.
DREDGING

Proposed Code Section 54.11 specifies that no new dredging (i.e., removal of material within the lakezone or Shorezone) would be allowed with the Preferred Alternative, except where this activity is found by TRPA to be beneficial to existing Shorezone conditions, water quality, and clarity. Maintenance dredging would be allowed for facilities that have previously been legally dredged. TRPA may find that the dredging is necessary to maintain an existing use at a public facility and either is within the previous footprint or is elsewhere within the same facility and necessary to maintain an existing use.

TRPA may permit temporary structures that extend beyond lake level 6,219 feet or the pierhead line where low lake levels prevent or reduce access to open water and dredging cannot be permitted.

SHOREZONE PRESERVATION AREAS

Proposed Code Section 50.4 describes the designation of SPAs. To protect large portions of the pristine Lake Tahoe shoreline from future development to the maximum extent possible consistent with the laws governing other resource management agencies, and to enhance natural resource values including wildlife habitat, sensitive plants, scenic values, and undeveloped recreation, parcels within designated SPAs (Figure 2-3) would be generally ineligible for construction of new structures within the Shorezone. SPAs are areas that TRPA has determined warrant substantial protection from additional Shorezone development that might affect significant biological, scenic, and other natural resource values and low-impact recreation (proposed Code Section 50.4.A). This designation balances those areas of the Shorezone generally open to development with the need to preserve undeveloped shoreline for dispersed recreation opportunities. The designation also provides an appropriate balance of public and private, and developed and undeveloped recreation opportunities around the Lake.

For the most part, SPAs are on publicly owned Shorezone lands. Also included are the private lakefront lands in the Tahoe Keys and in Glenbrook that are currently restricted from pier development. The Tahoe Keys and Glenbrook parcels would remain ineligible for construction of new structures regardless of any change in homeowners association covenants, deed restrictions, or other lawful recorded limitation currently precluding development in the Shorezone on those private parcels.

The general development restriction in SPAs applies only to new structures, and precludes development only within the Shorezone itself. Maintenance, modification, repair, restoration, or expansion of existing structures within these areas is allowed in accordance with provisions of the Shorezone Ordinances. Exceptions to this restriction may be made for shoreline protective structures, and for minimal pedestrian access structures (e.g., steps and boardwalks).

To the extent possible, approved development plans of the public land management agencies at Lake Tahoe have been reviewed in identifying the SPAs. Portions of the Shorezone identified by other agencies as needed to potentially meet those agencies’ legal mandate (e.g., public recreation and access opportunities) and identified in agency approved management plans prepared through a public process have to the extent now known been excluded from the SPAs.

Future planning efforts by the U.S. Forest Service, TRPA, or state land management agencies may identify the need for additional plans or projects within or affecting Shorezone designated by TRPA as a SPA. In the event that such a plan or project is proposed by an agency with jurisdiction to meet its legal mandates, the proposal will be subject to all applicable environmental review requirements and any required public review and approval process. Such proposals of public agencies will be prepared in cooperation with TRPA as provided in interagency Memoranda of Understanding (MOUs) and must demonstrate consistency with the Environmental Threshold Carrying Capacities of TRPA’s Regional Plan.
WATER QUALITY IMPROVEMENTS

ONRW BOAT POLLUTION REDUCTION PROGRAM (BLUE BOATING PROGRAM)

Boat use in the Lake Tahoe Basin could increase by 30% between 2004 and 2024, if a trend of 1.5% increase per year were to continue. This trend was identified based on boat surveys and county-wide boat registration cited in the Motorized Watercraft EA (1997). This would result in a corresponding increase in the potential for pollutants to enter the lake from those boats. Although this projected increase in boating is not directly attributable to the amended Shorezone Ordinances, the agency remains responsible for maintaining the antidegradation standard for water quality (compared to 2002 levels) established as part of Lake Tahoe’s designation as an Outstanding National Resource Water (ONRW). As part of the Preferred Alternative, TRPA would implement an ONRW boat sticker (Blue Boating) program. Approval of the Shorezone program would include the establishment of the environmental boat sticker program as mitigation for pollutants coming from the increasing number of motorized water craft at Lake Tahoe. Commitment to implementing this program would be included in the Shorezone Ordinances. As with other components of the Preferred Alternative, the Blue Boating program would be phased in:

1. As soon as the Shorezone program is approved, TRPA would begin inventorying all boats going into the Lake, looking at boat numbers, engine star rating and horsepower, bilge containment, sewage controls, engine noise, engine tune for high altitude, and boat washing needed to prevent the import or export of exotic aquatic plant and invertebrate species. Public outreach and education would be expanded at marinas on busy weekends.

2. Once the Total Maximum Daily Load reductions have been determined as part of the Pathway effort, including the amount of pollutant reductions expected from motorized boats, TRPA will work with the Lahontan Water Board and the Nevada Division of Environmental Protection to develop a program that most fairly and equitably meets those load reduction requirements, consistent with Lake Tahoe’s non-degradation standard. The most equitable and efficient method of reducing pollutants will be identified, and the costs will be determined.

3. Based on the mitigation and administrative costs, TRPA will propose a boat sticker cost structure based on the relative contribution of pollutants by source, public education and outreach costs, and the costs of administering the program. This program will then be forwarded to the TRPA Governing Board for approval.

EXOTIC AQUATIC TAXA ELIMINATION

With the Preferred Alternative, TRPA would expand and continue its recently implemented program to intercept, reduce or eliminate the incidence of exotic (non-native) aquatic plant, invertebrate and fish species at Lake Tahoe. Studies have shown that introduced exotic aquatic plants, primarily Eurasian milfoil, have spread throughout Lake Tahoe from the Tahoe Keys. In addition, quagga mussels have recently been found in the Colorado River system, and a concerted multi-jurisdictional effort is underway to intercept boats coming from areas infested by quagga or zebra mussels.

TRPA is examining the feasibility of adding visual inspections and boat wash facilities at public marinas and boat ramps throughout the Tahoe Region. In addition, a separately funded USACE feasibility study is being undertaken to define effective methods to reduce or eliminate the incidence of exotics and prevent them from spreading or reestablishing. This is a high-priority environmental improvement project for Lake Tahoe, and funding for the implementation plan and the ongoing intercept and elimination program is being provided by various agencies and conservation groups. In addition, TRPA is working on acquiring additional grant moneys to assist with this program. This program will continue regardless of whether the shorezone ordinances are approved.
LIMITS TO MOTORIZED USE OF EMERALD BAY

Concentrated boating traffic in Emerald Bay during the boating season has been found to result in detectable pollutant concentrations of polycyclic aromatic hydrocarbons (PAH) and other hydrocarbons, which are fuel oxygenates formed by combustion motors. Review of emissions data provided by boat manufacturers (see Appendix 6) indicates that initiating a 7-mph speed limit would reduce emissions from levels seen with the current 15-mph limit. The Preferred Alternative would institute a 7-mph zone throughout Emerald Bay that would reduce emissions of pollutants into the water. TRPA would work with the El Dorado County Sheriff’s Office and the California Department of Parks and Recreation to reach agreement on mechanisms for the enforcement of this speed limit. In addition, results of the boat surveys that will be conducted as part of the Blue Boating Program will assist TRPA in identifying criteria for measuring the reduction of pollutant emissions and future adaptive management measures that can be implemented if the standard is not met with implementation of the 7-mph limit.

APPLICATION PROCESS

Applications for new piers will be accepted and processed by TRPA on an annual cycle. Applications for new piers will be accepted until December 1 of each year. For applications that include a new private pier component, TRPA staff will review the submitted applications within 45 days and determine those 5 applications for new private pier projects to process for a permit. Prioritization of applications received will be based on identifying those projects that would retire the most parcels. In the event of a tie, those applications that retire the greatest length of littoral frontage measured at high water based on an approved survey would be given priority. In other words, the 5 pier permit applications each year that propose to retire the most parcels and then the greatest number of linear feet of lake frontage from future Shorezone development will be accepted for permit processing that year. In the event of a further tie, additional selection criteria would be the environmental sensitivity of the retired parcels.

Permit applications not accepted in a particular year may be resubmitted in subsequent years as originally proposed or as a revised project. Each application must be accompanied by the application fee. Once an application is selected as one of the 5 accepted applications, the LTPAF fee would be submitted and held until the permit is issued, then deposited in the LTPAF fund.

A parcel that is located entirely within a stream mouth protection zone or within ¼ mile of a public water intake may be included in the littoral frontage on a multiple-use pier application.

Applications for new buoys, slips, boat ramps, and other facilities will be accepted at any time. The streamlined multi-agency application process for new buoys is being developed in conjunction with the program.

FEES

Table 2-5 reflects all the fees required by these new ordinances and the purpose for which they will be used.

CODE AMENDMENTS

Appendix 1 of this FEIS identifies the proposed Code amendments applicable to the Preferred Alternative. The Code amendments are a composite of elements of Chapters 50–55 of the existing Code, elements of the proposed Code amendments for Alternative 2 that were provided in the 2004 DEIS, elements to implement the revisions in Alternative 6A, and those elements needed to implement further revisions necessary as a result of collaboration with Nevada and California agencies during 2007 and 2008.
<table>
<thead>
<tr>
<th>Type of Fee</th>
<th>Amount of Fee</th>
<th>Future Adjustments</th>
<th>Expenditures of Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application fee for any proposed development in the Shorezone, including new piers and pier modification or expansion</td>
<td>Varies based on actual costs of processing permit application</td>
<td>Adjusted annually to reflect actual costs of processing applications</td>
<td>Staff time to process application</td>
</tr>
<tr>
<td>Lake Tahoe Public Access Fund</td>
<td>$100,000 per new private pier; $20 per added square foot for pier expansions</td>
<td>Adjusted annually based on regional consumer price index</td>
<td>Recreational lake access, land acquisition, facilities construction and improvements, and other projects that demonstrably improve public recreational access to and on the Lake</td>
</tr>
<tr>
<td>Buoy permit application fee</td>
<td>$500 per buoy not already permitted by TRPA.</td>
<td>May be adjusted to reflect actual staff cost to process.</td>
<td>Staff time to process application</td>
</tr>
<tr>
<td>Additional buoy permit fee</td>
<td>$500 per additional buoy per parcel in addition to the buoy permit application fee (total of $1,000) (homeowners associations excepted)</td>
<td>No adjustments, one-time fee</td>
<td>To fund startup costs of buoy enforcement program</td>
</tr>
<tr>
<td>Buoy recognition fee</td>
<td>Minimum of $500, not to exceed actual review cost</td>
<td>No adjustments, one-time fee</td>
<td>Staff time to evaluate buoy documentation</td>
</tr>
<tr>
<td>Annual buoy permit fee (also required to “trade” for boat lift)</td>
<td>$175 per year for private buoys and $100 annually for public buoys in marinas</td>
<td>Adjusted every 5 years to reflect actual costs of enforcement and mitigation, not to exceed regional consumer price index</td>
<td>50% for watercraft and buoy enforcement, 30% for water quality and air quality monitoring, 20% for shoreland scenic improvements on public land (goes to shoreland scenic mitigation fund)</td>
</tr>
</tbody>
</table>
Figure 2-4
Pier Design Standards
Lake Tahoe Shorezone Ordinance Amendments Final EIS

Source: Acanthus 2005
Figure 2-5
Remaining Pier Eligibility with the Preferred Alternative
Lake Tahoe Shorezone Ordinance Amendments Final EIS

Note: This figure provides an initial estimate of remaining eligibility in each scenic unit. Remaining eligibility will be verified for individual projects based on the most current information in TRPA's GIS database.