

9 SCENIC RESOURCES

9.1 INTRODUCTION

This chapter includes a discussion of existing visual conditions, a summary of applicable visual quality regulations, and an analysis of potential visual impacts that could result from implementation of the Shoreline Plan alternatives. The primary issues raised during scoping that pertain to scenic resources include:

- ▲ scenic degradation from new and existing unpermitted buoys;
- ▲ visual effects of new private piers and private shoreline development;
- ▲ concerns about the scenic effects of specific design standards, pier lengths, and scenic requirements;
- ▲ visual effects of non-motorized boat rentals on beaches; and
- ▲ Concerns are about whether moorings would include lights.

The methods of analyzing the Shoreline Plan alternatives effects in this chapter are consistent with the TRPA scenic threshold monitoring system and the scenic analysis approach endorsed by the Shoreline Plan Joint Fact-Finding Committee (TRPA 2017a). Scenic threshold monitoring data collected by TRPA in 2015 are used to determine existing conditions. The review includes an evaluation of the long-term effects of buildout of shoreline development consistent with the policies and standards proposed in each alternative. Scenic threshold monitoring data and, where available, information on parcels that could be eligible for new structures are used to identify portions of the shoreline that have the greatest potential for scenic degradation. The analysis includes simulations of views of those portions of the shoreline that have the greatest potential for scenic degradation, as viewed from the lake and shore. The analysis also quantifies estimated changes in visible mass based on the proposed design standards, required visual screening, and typical visible mass associated with shoreline structures.

As discussed in Chapter 3, “Approach to Environmental Analysis,” this analysis is provided to assess and document the environmental effects of the four Shoreline Plan alternatives. The broad geography and long timeframe to which the Shoreline Plan applies, and the policy-oriented nature of its guidance is such that the EIS is prepared at a programmatic level, i.e., a more general analysis of each resource area with a level of detail and degree of specificity commensurate with the overall planning level of the Shoreline Plan. The scenic effects of individual future shoreline projects would be evaluated when those projects are proposed. Project level review would include a scenic assessment consistent with the Scenic Resources/Community Design, and Light and Glare sections of TRPA’s Initial Environmental Checklist. The project-level review of future shoreline projects would require compliance with scenic regulations in the TRPA Code, including the visual magnitude system and mitigation requirements in Chapter 66.

Development under the Shoreline Plan alternatives would not produce new sources of light or glare. Piers and boat ramps would be prohibited from having lighting, except for limited cases where public safety lighting is required, and other shorezone structures such as buoys, slips, boat lifts, and swim platforms would not include lights. The components of marina expansions regulated by the Shoreline Plan under Alternatives 1, 2, and 3 (or new marinas under Alternative 2) would also not generally be associated with new sources of light or glare, because they would be related to additional moorings. Reflective materials would not be allowed in construction of any new shorezone structures. Therefore, impacts on light and glare are not addressed in detail in this chapter.

In addition, development under the Shoreline Plan alternatives would not affect the character of existing communities. While landside development could occur in association with shoreline development (e.g., parking and building reconfigurations associated with a new boat ramp), the shoreline plan would not alter the design guidelines and standards that apply to landside structures. Redevelopment or new development along the shore, but outside of the shorezone, would continue to comply with standards in the TRPA Code

and local plans that are intended to preserve and promote desired community character. Therefore, impacts on community character are not addressed in detail in this chapter.

9.2 REGULATORY SETTING

9.2.1 Federal

U.S. FOREST SERVICE VISUAL MANAGEMENT SYSTEM

The U.S. Forest Service (USFS), Lake Tahoe Basin Management Unit manages approximately 27 percent of Lake Tahoe's shoreline. The USFS employs the Visual Management System (VMS) to analyze effects of management activities on the scenery of a given area. The VMS had been used since the mid-1970s and in 1995, the USFS developed an updated version of the VMS, introducing the Scenery Management System (SMS). The VMS and SMS are both structured to primarily emphasize "natural appearing" scenery, but SMS recognizes the positive scenic values associated with some human modified (cultural) features and settings that are valued for their scenic influence. The SMS allows for analysis and conservation beyond national forest lands into adjacent communities and other jurisdictions. The SMS provides a systematic approach for determining the relative value and importance of scenery in National Forest lands (USFS 1995). In addition to the TRPA scenic management system, described below, the USFS may apply the VMS and SMS in the planning and review of future shoreline projects on National Forest lands.

9.2.2 Tahoe Regional Planning Agency

SCENIC THRESHOLDS

TRPA adopted environmental threshold carrying capacities in August 1982 for the purpose of maintaining and improving the various resources of the Tahoe Basin. Scenic quality is an exceptional attribute of the Tahoe Basin, and specific threshold carrying capacities were developed to protect and improve the scenic resources of the area. TRPA threshold standards require maintenance of numeric threshold rating values for roadway and shoreline travel routes, individually mapped scenic resources, and recreation area scenic resources. The scenic thresholds also include a policy statement that address the community design. Additional detail on the scenic thresholds is available in Chapter 9, "Scenic Resources," of the 2015 Threshold Evaluation Report (TRPA 2016).

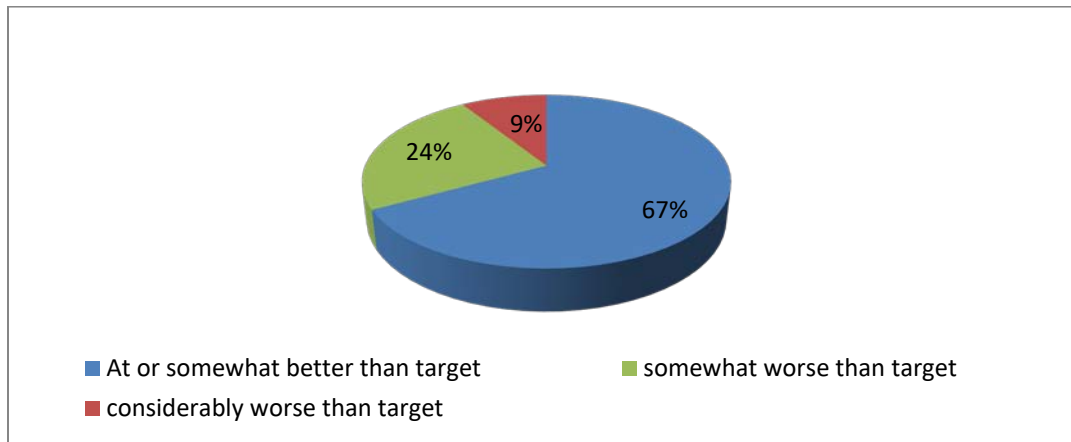
Shoreline Travel Route Ratings

The shoreline travel route ratings evaluate long-term cumulative scenic conditions looking toward the shore from the surface of Lake Tahoe. The lake's 72-mile shoreline is separated into 33 individual units, each representing a portion of the shoreline (of varying length) that exhibits similar visual character. Updated travel route ratings that reflect current conditions are generated every 4 to 5 years during shoreline scenic threshold monitoring. Travel route ratings consist of a numeric composite score that represents the relative scenic quality throughout the entire travel unit. The following components are considered and rated for each shoreline travel unit:

- ▲ man-made features along shoreline,
- ▲ general landscape views within the shoreline unit, and
- ▲ variety of scenery within the shoreline unit.

Each component is rated from one (low or absent) to five (high). A composite rating is obtained by summing the ratings of the three aspects. Therefore, the composite rating for an individual shoreline travel unit can range from three to 15. To be in attainment of the threshold standard, the current composite rating of any shoreline travel unit must be at least 7.5 and must also be at least equal to the rating originally assigned in

1982. Therefore, if the current rating for a shoreline travel unit is below the standard of 7.5, the unit is out of attainment. Additionally, if the current rating is below its original 1982 rating, even if the current rating is above 7.5, the unit is out of attainment. Eleven shoreline travel units (33 percent) are out of attainment, with three of those being assessed as “considerably worse than target” and eight of those assessed as “somewhat worse than target”. The remaining 22 shoreline travel units are in attainment of the threshold standard (see Exhibit 9-1; TRPA 2016).



Source: TRPA 2016

Exhibit 9-1 Percent of Shoreline Travel Units by Threshold Attainment Status

Exhibit 9-2 shows the percentage of shoreline travel units that were in attainment of the threshold standard for each threshold evaluation since the standards were adopted in 1982. As shown in Exhibit 9-2, there was a steady decline in the number of shoreline travel units in attainment from 1982 through 2001. From 2006 through 2015, there has been an improving trend in the number of units in attainment. This improving trend is partly due to the adoption of shoreland ordinances in 2002, which added a visual magnitude system for the evaluation of projects along the shoreline as described below (TRPA 2016).

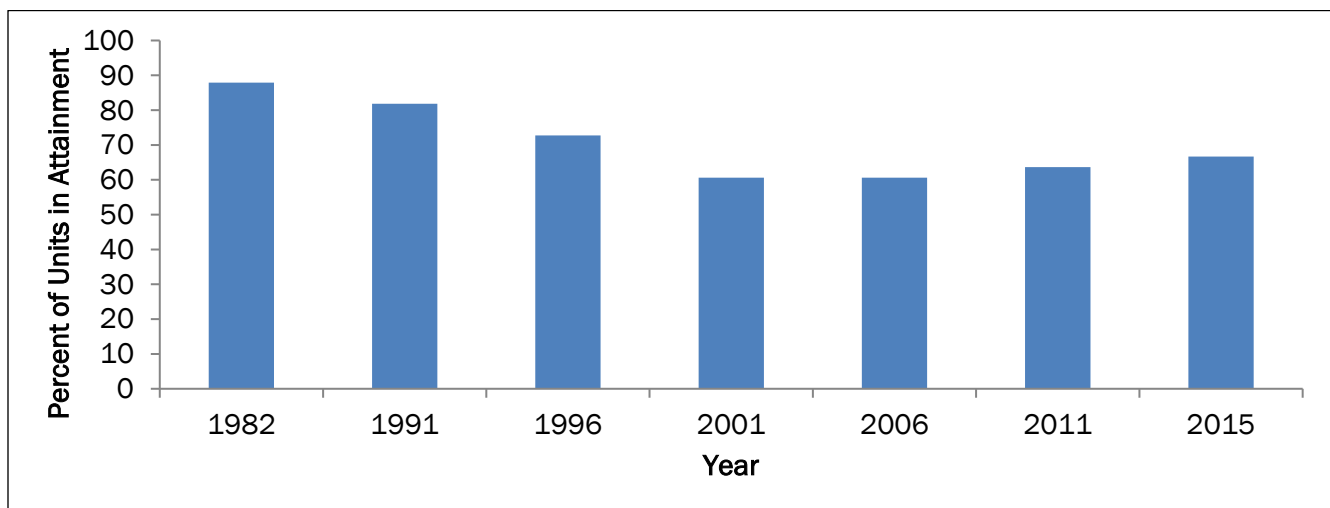


Exhibit 9-2 Trend in the Percent of Shoreline Travel Units in Attainment

Exhibit 9-3, below, shows the change in the average composite rating for all shoreline travel units since the standards were adopted in 1982. The improving trend since 2006 is more evident in the average composite ratings because it shows scenic improvements in travel units that are already in attainment. The average composite ratings also account for improvements in the scenic quality of travel units that are not in attainment, that did not bring the unit into attainment.

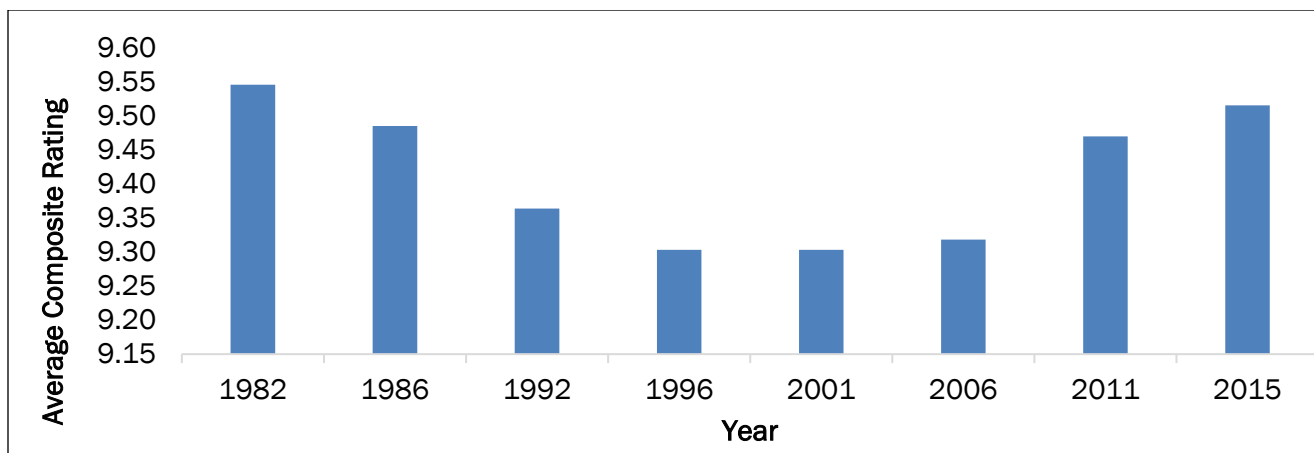


Exhibit 9-3 Trend in the Average Composite Rating of Shoreline Travel Units

Scenic Quality Ratings for Shoreline Scenic Resources

In contrast to travel route ratings that reflect the positive or negative effects of the landscape on scenic quality throughout an entire travel unit, the quality rating for scenic resources in shoreline travel units reflect the scenic quality of individual views or features of the shoreline that are visible from the lake. The scenic resources in the region include certain views of the natural landscape and distinctive natural features that were identified, mapped, described, and evaluated as part of a 1982 scenic resource inventory (TRPA 1982).

Scenic quality is measured by rating each of four subcomponents and summing the values to produce a composite score. The following visual characteristics comprise the subcomponents. These characteristics are well documented in academic and professional literature as useful and objective measures of relative scenic value (Iverson et. al. 1993; TRPA 2016):

- ▲ **Unity** - A unified landscape is one where the visual resources join together to form a single, coherent, harmonious visual unit.
- ▲ **Vividness** - Also described as distinctiveness, can be expressed by contrasting elements such as color, line, and shape, or marked differences in elements seen as related, or repetition of similarities.
- ▲ **Variety** - Variety or richness usually consists of numerous of different parts seen together that add visual interest.
- ▲ **Intactness** - Intactness describes the degree to which modifications emphasize or enhance the natural condition of the landscape.

Each characteristic is rated from zero (absent) to three (high). A composite rating is obtained by summing the ratings of the four characteristics; therefore, the composite rating for an individual shoreline scenic resource can range from zero to 12. There are 184 inventoried shoreline scenic resources and, 169 (92 percent) are in attainment of the threshold standard (TRPA 2016).

Exhibit 9-4 shows the locations and attainment status of the 33 shoreline travel units (shown as segments of the shoreline) and shoreline scenic resources (shown as points).

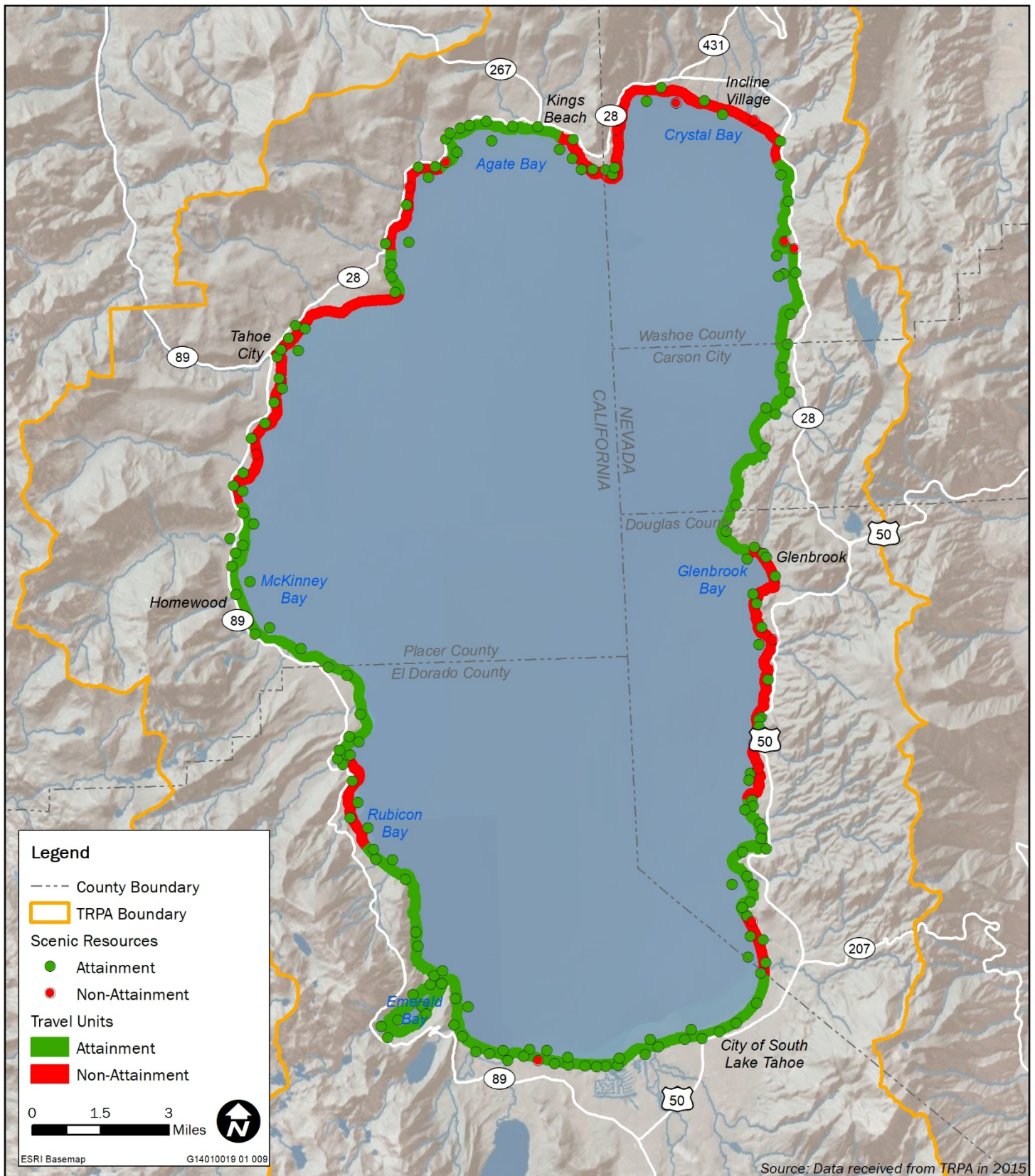


Exhibit 9-4 **Location and Threshold Attainment Status of Shoreline Travel Units and Scenic Resources**



Roadway Travel Units

Similar to the shoreline travel units, roadway travel units are used to evaluate long-term cumulative scenic conditions of traveling the Region's major roads, including all state and federal highways and Pioneer Trail. These roadways are separated into 54 travel units, each of which represents a continuous, two-directional viewshed of similar visual character. As with shoreline travel units, updated travel route ratings that reflect current conditions are generated every four to five years during scenic threshold monitoring. Travel route ratings consist of a numeric composite score that represents the relative scenic quality throughout the entire travel unit. Scenic roadway travel units are divided into three visual environments: urban, transition, and natural based on the level of human alterations that are visible within the unit. Section 66.2.2 of the TRPA Code provides definitions for each of these visual environments. The following components are identified and rated according to their effect on scenic quality within each roadway travel unit (TRPA 2016):

- ▲ man-made features along the roadway;
- ▲ physical distractions to driving along the roadways;
- ▲ roadway characteristics;
- ▲ view of the lake from the roadways;
- ▲ general landscape views from the roadways; and
- ▲ variety of scenery from the roadways.

Roadway travel unit ratings reflect all six of these components. Each component is rated from one, a strong negative effect on scenic quality, to five, a strong positive effect on scenic quality. A composite rating is calculated by summing the ratings of the six components. Therefore, the composite rating for a roadway travel unit can range from six to 30. To be in attainment with the threshold standard, the composite rating of each roadway travel unit must be at least 15.5 and equal or exceed the rating originally assigned in 1982. Of the 54 roadway travel units, 33, or 63 percent are in attainment and 21, or 34 percent, are not in attainment.

Exhibit 9-5 shows the trend in the percent of roadway travel units in attainment since 1982. As shown in Exhibit 9-5, the scenic quality of roadway travel units decreased from 1982 to 1991 and have been improving ever since. The improvement in roadway travel unit ratings since 1991 is the result of redevelopment consistent with design standards, roadway upgrades, and scenic quality improvement projects (TRPA 2016).

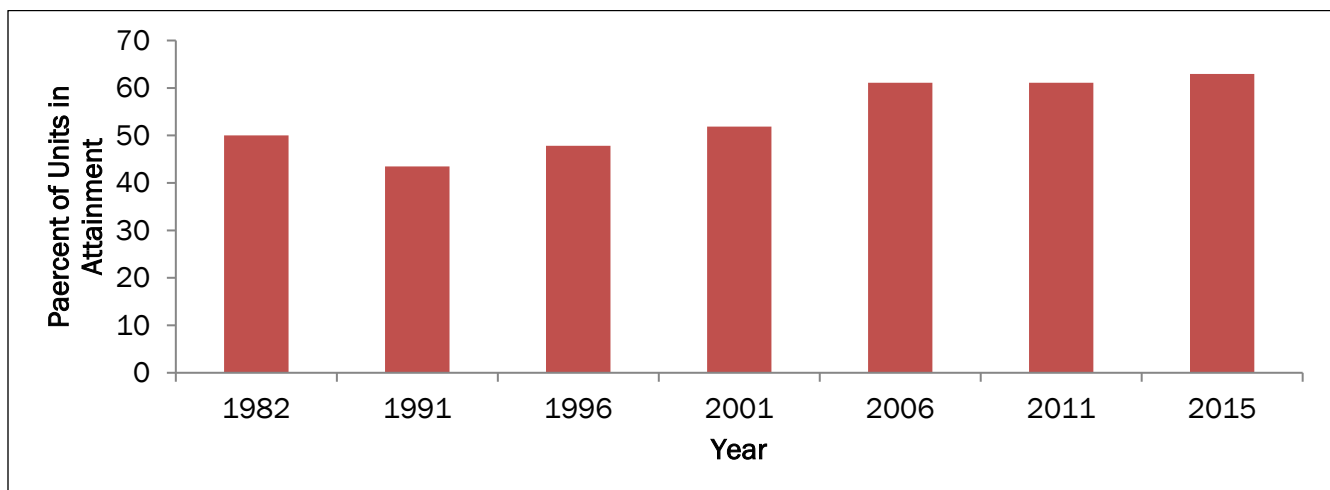


Exhibit 9-5 Trend in the Percent of Roadway Travel Units in Attainment

Scenic Quality Ratings for Roadway Scenic Resources

Similar to the scenic quality rating for shoreline travel units, the scenic quality ratings for roadway travel units reflect the scenic quality of individual views or scenic resources that are visible from the region's major

roadways that were identified, mapped, described, and evaluated as part of a 1982 scenic resource inventory (TRPA 1982). Scenic resources visible from roadways include:

- ▲ foreground, middleground, and background views of the natural landscape;
- ▲ views to the lake from roadways;
- ▲ views of the lake and natural landscape from roadway entry point into the basin; and
- ▲ unique regional landscape features such as streams, beaches, and rock formations that add interest and variety.

The quality of scenic resources in roadway travel units is measured by rating each of the four characteristics described above: unity, vividness, variety, and intactness. Each characteristic is rated from zero (absent) to three (high). A composite rating is obtained by summing the ratings of the four characteristics; therefore, the composite rating for an individual roadway scenic resource can range from zero to 12. There are 208 inventoried roadway scenic resources and, 202 (97 percent) are in attainment of the threshold standard (TRPA 2016).

Exhibit 9-6 shows the locations and attainment status of the 54 roadway travel units (shown in varying widths for urban, transition, and natural travel units) and roadway scenic resources (shown as points).

Public Recreation Areas and Bike Trails Scenic Quality Ratings

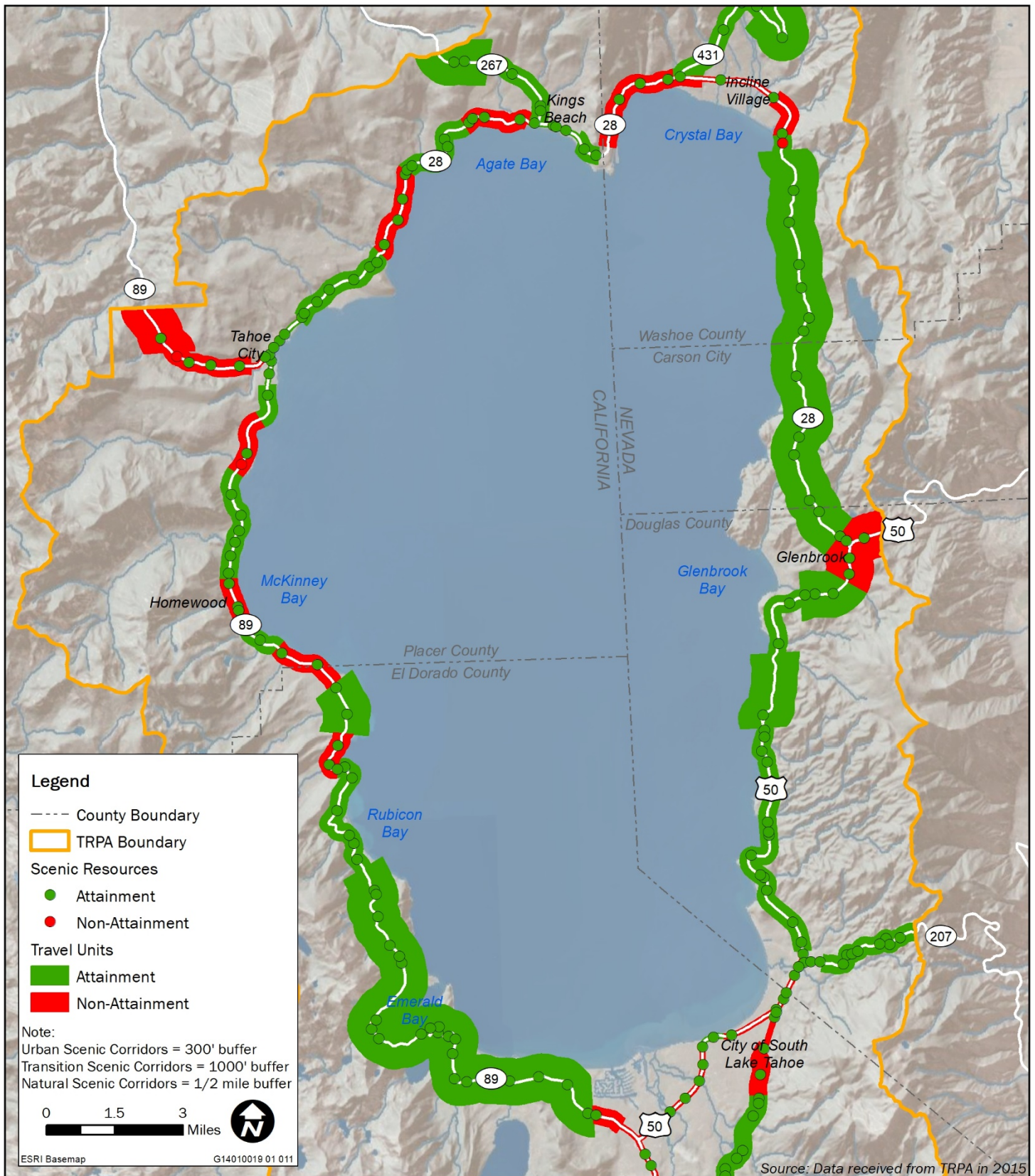
The TRPA public recreation area scenic quality threshold applies to specific public recreation areas, including beaches, campgrounds, ski areas, and segments of Class I and Class II bicycle trails. Public recreation areas with views of scenic resources are valuable because they are major public gathering places, hold high scenic values, and are places where people are static (compared to people on the travel routes) and, therefore, have more time to focus their attention on the views and scenic resources. Scenic resources seen from public recreation areas include: views of the lake and the surrounding natural landscape from within the recreation area; views of distinctive natural features that are within the recreation area; and views of human-made features in or adjacent to the recreation area that influence the viewing experience.

The scenic quality of views of natural features and the lake from public recreation areas and bike trails is measured by rating each of the four characteristics described above: unity, vividness, variety, and intactness. In addition, human-made features are rated for their coherence, condition, and compatibility. A composite score is generated for each inventoried public recreation area or bicycle trail by summing the scores of the applicable characteristics. There are 390 inventoried scenic resources associated with public recreation areas and bicycle trails and, 381 (98 percent) are in attainment of the threshold standard (TRPA 2016).

Community Design

The TRPA community design threshold is a policy statement that applies to the built environment and is intended to ensure that design elements of buildings are compatible with the natural, scenic, and recreational values of the region. The policy states:

It shall be the policy of the TRPA Governing Body in development of the Regional Plan, in cooperation with local jurisdictions, to ensure the height, bulk, texture, form, materials, colors, lighting, signing and other design elements of new, remodeled and redeveloped buildings be compatible with the natural, scenic, and recreational values of the region.



The community design threshold is implemented in two ways. First, the area plan and community plan process has been used to develop design standards and guidelines that are tailored to the needs and desires of individual communities. These standards and guidelines are considered “substitute” standards because they replace all or portions of TRPA Code that would otherwise regulate the same subject. Secondly, the site planning and design principles contained in the TRPA Code are implemented as part of individual development projects, and are reviewed and approved by TRPA and local governments. The 2015 Threshold Evaluation Report determined that the community design policy statement was being implemented (TRPA 2016).

GOALS AND POLICIES

The Goals and Policies of the Regional Plan establish an overall framework for development and environmental conservation in the Lake Tahoe region. The goals and policies present the overall approach to meeting TRPA’s environmental threshold carrying capacities (discussed below) and establish guiding policy for each resource element. The Conservation Element (Chapter 4) of the Goals and Policies includes a Scenic Subelement. In addition, the Shorezone Subelement includes goals and policies that address the scenic quality of the shoreline. Applicable goals and policies are listed below:

GOAL SR-1 Maintain and restore the scenic qualities of the natural appearing landscape.

- ▲ **Policy SR-1.1** All proposed development shall examine impacts to the identified landscape views from roadways, bike paths, public recreation areas, and Lake Tahoe.
- ▲ **Policy SR-1.2** Any development proposed in areas targeted for scenic restoration or within a unit highly sensitive to change shall demonstrate the effect of the project on the 1982 travel route ratings of the scenic thresholds
- ▲ **Policy SR-1.3** The factors or conditions that contribute to scenic degradation, as specified in the scenic quality improvement program (SQIP), need to be recognized and appropriately considered in restoration programs, plan development, and during project review to improve scenic quality.

GOAL SR-2 Improve the accessibility of Lake Tahoe for public viewing.

- ▲ **Policy SR-2.1** Enhance the opportunities to view Lake Tahoe by designing view corridors from highways.
- ▲ **Policy SR-2.2** Scenic viewpoints from roadways should be identified and pull off facilities provided on public property, wherever desirable.
- ▲ **Policy SR-2.3** Signs should be placed along the roadways, as appropriate, to identify photo sites and scenic turnouts.
- ▲ **Policy SR-2.4** Time limits for parking at roadside turnouts should be established

GOAL SZ-1 Provide for the appropriate shorezone uses of Lake Tahoe, Cascade Lake, and Fallen Leaf Lake while preserving their natural and aesthetic qualities

- ▲ **Policy SZ-1.1** All vegetation at the interface between the backshore and foreshore zones shall remain undisturbed unless allowed by permit for uses otherwise consistent with the shorezone policies
- ▲ **Policy SZ-1.9** The agency shall regulate the placement of new piers, buoys, and other structures in the foreshore and nearshore to avoid degradation of fish habitats, creation of navigation hazards, interference with littoral drift, interference with the attainment of scenic thresholds, and other relevant concerns.

CODE OF ORDINANCES

If a project is visible from Lake Tahoe, a scenic roadway travel unit, or a designated scenic resource, the potential scenic impacts of the project from those areas must be analyzed and mitigated. Chapter 3 of the TRPA Code requires that TRPA review any proposed project to determine if it would result in a significant environmental effect. This project-level environmental review would include an evaluation of whether a project could affect a scenic threshold standard (see TRPA Initial Environmental Checklist Section 18). Prior to approving a shoreline structure or other project, TRPA would require feasible mitigation measures to reduce or avoid significant adverse environmental effects, including effects on scenic resources. Furthermore, Code Section 4.4.1.B requires that, prior to approving any project, TRPA must make a finding, based on evidence, that the project “will not cause the environmental threshold carrying capacities to be exceeded”. This finding would prevent TRPA from approving individual projects that could degrade a shoreline or roadway travel unit rating, or a scenic quality rating for a scenic resource.

Design Standards

Chapter 36, “Design Standards,” and Chapter 66, “Scenic Quality,” of the TRPA Code contain standards pertaining to scenic quality. These chapters establish a process for analyzing projects for scenic quality and define those circumstances that require preparation of scenic assessments and/or other documents. Sections 66.1.3, 66.1.4, 66.1.5, and 66.2.4 describe scenic quality standards for roadway and shoreline travel units, and for public recreation areas and bicycle trails. Specific design standards and scenic requirements for shorezone structures would be established by the Shoreline Plan. The proposed standards included in each alternative are described in Chapter 2, “Description of the Proposed Project and Alternatives,” of this EIS.

Visual Magnitude System

TRPA Code section 66.3 includes requirements for the scenic quality review of projects in the shoreland (i.e., projects along the shoreline but landward of the shorezone). For all projects in the shoreland, except for some exact in-kind replacements of existing structures, a scenic assessment is required, and the visual magnitude of existing and proposed structures is regulated. Visual magnitude is a measure of the size and visual contrast of human-made structures that could detract from scenic views. Appendix H of the TRPA Design Review Guidelines (TRPA 2004) provides a detailed methodology for calculating the visual magnitude of a proposed project. For each element of a structure visible from the lake, this methodology calculates a score for the color, reflectivity of glass, surface texture, and percentage of the structure’s perimeter that is visible. These factors are combined to generate a numeric contrast rating ranging from 3 to 35. TRPA Code section 66.3 regulates the allowable visible mass of shoreland structures based on this contrast rating.

Visible Mass

To attain and maintain the scenic threshold standards, TRPA evaluates and regulates the visible mass of shoreline structures. Visible mass is defined by TRPA as the total visible area of a shoreline structure, including all elements of the structure. Visible mass is calculated by summing the area (in square feet) of visible elements of the structure when viewed in profile (i.e., parallel to the shore), and the area of visible elements of the structure when viewed from the end (i.e., perpendicular to the shore). The existing shorezone partial permitting program screening criteria require that a shorezone project offset any increase in visible mass at a 1:1 ratio in shoreline travel units that are in attainment of threshold standards, and at a 1.5:1 ratio in units that are not in attainment (TRPA 2011). The visible mass regulations and offset requirements proposed under each Shoreline Plan alternative are described in Chapter 2, “Description of the Proposed Project and Alternatives,” and are evaluated below.

SCENIC QUALITY IMPROVEMENT PLAN AND ENVIRONMENTAL IMPROVEMENT PROGRAM

The Scenic Quality Improvement Plan (SQIP) was adopted by TRPA to provide a program for implementing physical improvements to the built environment. The SQIP is intended to contribute to the attainment of the scenic thresholds and serves as an implementation guide for the Regional Plan. The Environmental Improvement Program (EIP), adopted in 1998 and updated in 2010, incorporates elements of the SQIP. The

EIP includes a list of specific projects throughout the Basin that are needed to attain and maintain the thresholds (TRPA 2010a). The EIP includes program elements to improve the scenic quality of roadways and shorelines. Currently the Tahoe Vista Utility Undergrounding Project is the only public sector scenic improvement project on the 5-year EIP project list.

9.2.3 California

CALIFORNIA SCENIC HIGHWAY PROGRAM

California's Scenic Highway Program was created by the California Legislature in 1963 and is managed by the California Department of Transportation. The goal of this program is to preserve and protect scenic highway corridors from changes that would affect the aesthetic value of the land adjacent to highways. A highway may be designated "scenic" depending on how much of the natural landscape travelers can see, the scenic quality of the landscape, and the extent to which development intrudes on travelers' enjoyment of the view (Caltrans 2011).

The program includes a list of highways designated as, or eligible to become, official scenic highways, and includes a process for the designation of official State and County Scenic Highways. State Route SR 89 and SR 28 within the Placer County portion of the region are classified as "eligible" routes under the Scenic Highway Program. Within the El Dorado County portion of the region, SR 89 is officially designated as a State Scenic Highway. The U.S. Highway 50 (U.S. 50) from the Nevada state line to the "Wye" intersection with SR 89 is designated as eligible, and U.S. 50 from the "Wye" intersection through Echo Summit is officially designated as a State Scenic Highway. All roadways that are eligible or officially designated under the program are also within TRPA-designate scenic roadway travel units.

9.2.4 Nevada

NEVADA SCENIC BYWAY PROGRAM

Nevada maintains a system of scenic byways. Nevada's Scenic Byway program was established by the Nevada Legislature in 1983. The Nevada Department of Transportation is the primary agency responsible for the program, and its director has the authority to add new byways into the system. The entirety of U.S. 50 and SR 28 within the Nevada portion of the region are designated as scenic byways. These scenic byways are also within TRPA-designate scenic roadway travel units.

9.3 AFFECTED ENVIRONMENT

Scenic quality is perhaps the most often identified natural resource of the Lake Tahoe Region. The Region affords views of a magnificent lake setting within a forested mountainous environment. The unique combination of visual elements provides for exceptionally high aesthetic values. The Bi-State Compact declares "Maintenance of the social and economic health of the region depends on maintaining the significant scenic ...values provided by the Lake Tahoe Basin." (Public Law 96-551).

Human activity has had a notable influence on the visual landscape within the Tahoe region. Beginning with the Comstock era around 1859, demand for timber resulted in extensive logging within the area with large portions appearing virtually deforested by 1890 (USGS 2005). Urban development began in the early 1900s with small vacation resorts and a few communities. After World War II, demand for recreation, tourism, and permanent housing fueled large increases in development. Commercial development increased to become the second largest developed land use next to residential by 2002. Even so, concentrated shoreline development in the region is largely confined to private lands associated with residential, commercial, and tourist land uses (see Chapter 4, "Land Use").

LAKE TAHOE

Lake Tahoe is a lake with remarkable color, clarity, size, and depth. The lake's water clarity allows a viewer to see approximately 70 feet deep, though the clarity has declined from greater than 100 feet since readings began in the late 1960s (TRPA 2012). Lake Tahoe is the second deepest lake in the United States and the tenth deepest in the world, with a maximum depth measured at 1,645 feet. The color of Lake Tahoe's water is highly variable, influenced by depth. Water color ranges from clear, light green at the shallow lake edges (especially noteworthy in areas near Tahoe City), to dark blue in the deeper areas. The Lake is approximately 22 miles long and 12 miles wide, with 72 miles of shoreline and a surface area of 191 square miles (USGS 2008). The expansiveness of the Lake allows for long-distance views throughout the area.

Shoreline Character Types

Each portion of the shoreline is also classified as one of four shoreline character types, based on the level of human development that is visible. The visual character types along the shoreline are shown Exhibit 9-7 and include the following:

- ▲ **Visually Dominated Shoreline.** Approximately two percent of the shoreline is composed of visually dominated character types. This character type includes all marinas and other areas with large prominent buildings, high boat density and buoy fields, equipment, and commercial activity. There is usually considerable visual clutter associated with these uses (Exhibit 9-8).
- ▲ **Visually Modified Shoreline.** Approximately 48 percent of the shoreline is composed of visually modified character types. This character type includes areas with visually-prominent homes and other structures along the shoreline, but with considerable vegetation intact. This character type can include limited areas with high intensity clusters of shoreline structures. Most of the developed portions of the shoreline fall into this category (Exhibit 9-9).
- ▲ **Visually Sensitive Shoreline.** Approximately 16 percent of the shoreline is composed of visually sensitive character types. These are highly scenic or vulnerable landscapes exhibiting the influence of man-made modifications within an otherwise natural setting. Visually Sensitive areas include long expansive sandy beaches where shoreline structures are highly visible and difficult to screen from view (Exhibit. 9-10).
- ▲ **Natural Dominated Shoreline.** Approximately 34 percent of the shoreline is composed of natural dominated character types. These areas consist of either naturally appearing landscapes (e.g., east shore, Emerald Bay, Upper Truckee Marsh), or historical/traditional locations that include culturally modified landscapes in highly scenic locations (e.g., Thunderbird Lodge, Vikingsholm) (Exhibit 9-11).

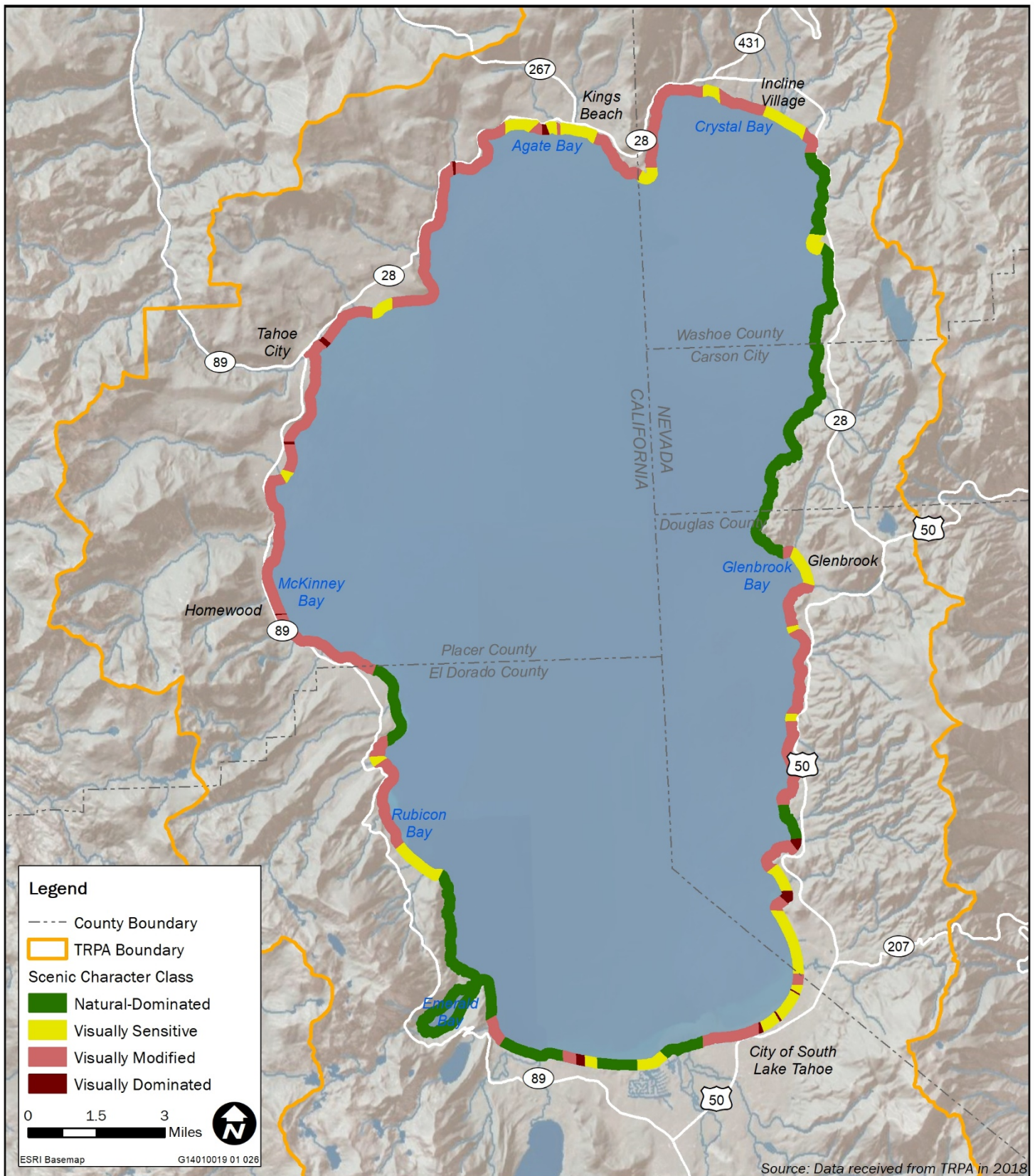
Shorezone Development

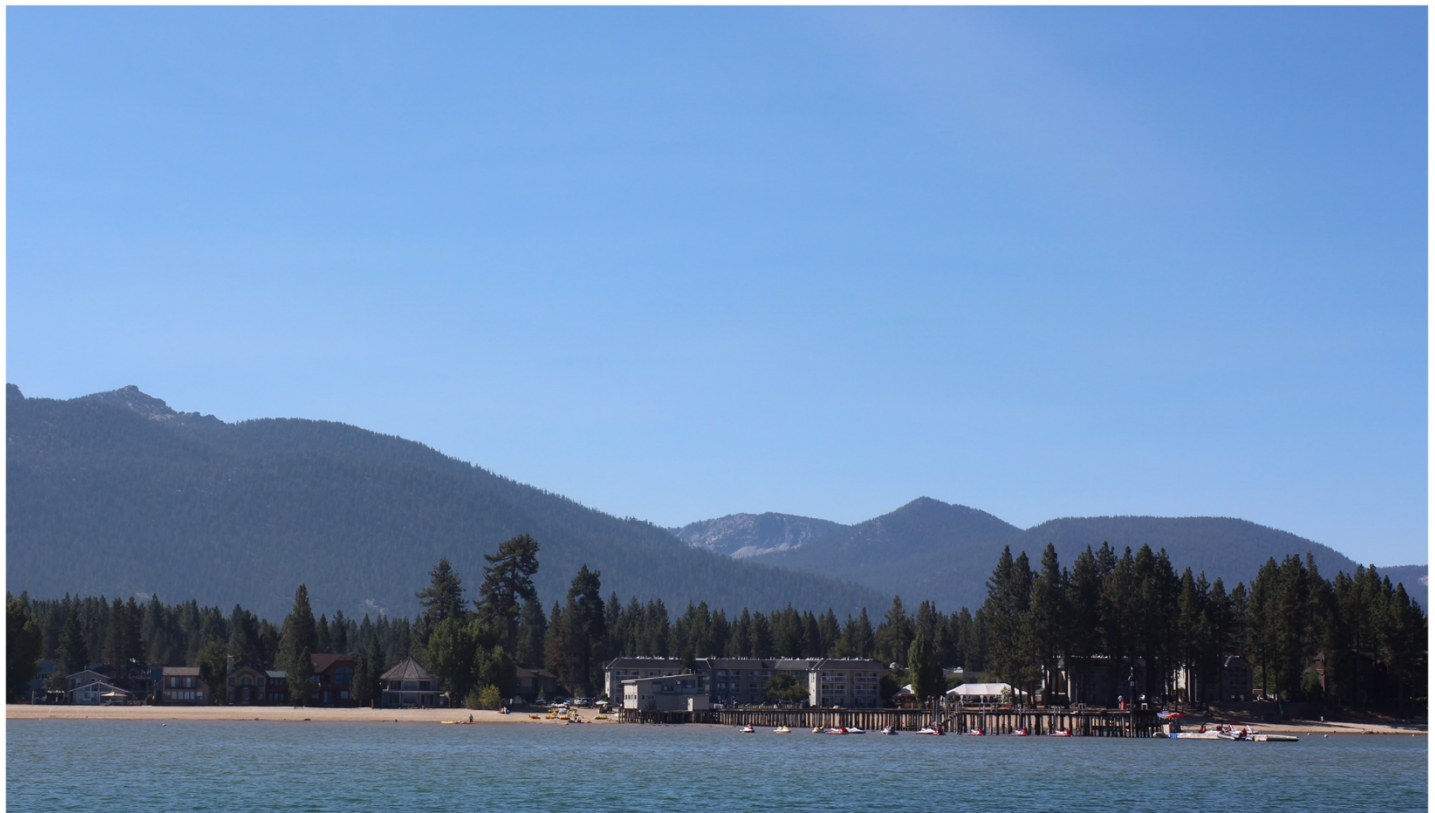
The shorezone of Lake Tahoe is defined in Section 2.2. of Chapter 2, "Description of the Proposed Project and Alternatives." It generally includes the shore and the portion of the lake closest to the shore.

Development in this area can negatively affect the intactness and unity of views toward or along the shoreline. The scenic effects of shorezone development depend on factors including the visible mass, color, density, and location of shorezone development. The type of structures that occur in the shorezone include piers, buoys, boat ramps, breakwaters, and the most lakeward portions of marinas.

Shoreland Development

The Shoreland is defined in Section 90.2 of the TRPA Code. It generally includes upland areas along the shoreline that are landward of the shorezone. Development in the shoreland can also negatively affect the intactness and unity of views toward or along the shoreline. The scenic effects of shoreland development depends on the amount and visible magnitude (see description of visual magnitude system in the regulatory setting, above) of the development. The type of structures that occur in the shoreland include residences, commercial buildings, roadways, parking lots, and the most landward portions of marinas.





Source: Photos taken by TRPA in 2016

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**TAHOE
REGIONAL
PLANNING
AGENCY**

Exhibit 9-8 Visually Dominated Shoreline





Source: Photos taken by TRPA in 2016

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**TAHOE
REGIONAL
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Exhibit 9-9 Visually Modified Shoreline





Source: Photos taken by TRPA in 2016

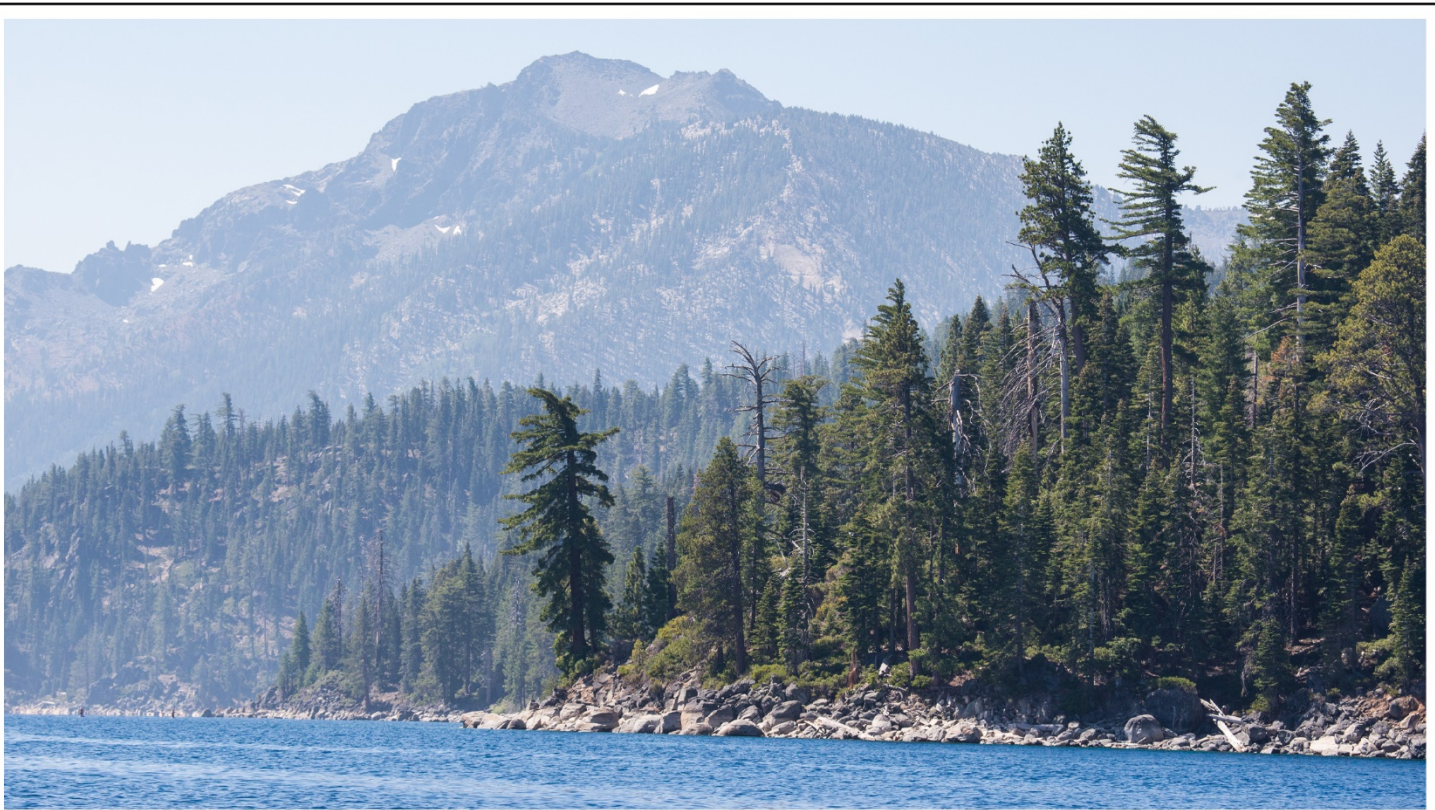
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**TAHOE
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Exhibit 9-10 Visually Sensitive Shoreline





Source: Photos taken by TRPA in 2016

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**TAHOE
REGIONAL
PLANNING
AGENCY**

Exhibit 9-11 Natural Dominated Shoreline



VIEWER SENSITIVITY

Viewer sensitivity is the overall measure of the degree to which potential viewers would be sensitive to adverse visual changes in an existing landscape. Viewer sensitivity is evaluated based on the viewer exposure to the visual resource, the existing visual quality, the frequency and duration of views, the number of viewers, and the type and expectations of individuals and viewer groups. In areas of more distinctive visual quality and where viewers expect to encounter high-quality scenic views, viewer sensitivity is more pronounced. Because the Lake Tahoe shoreline generally contains views with high scenic quality, and because viewers tend to be recreationists or residents that visit or reside at Lake Tahoe in part due to this high scenic quality, viewer sensitivity to changes in Lake Tahoe's shoreline is very high. Visible changes that would have little or no effect on viewers elsewhere could be perceived as substantial changes if they occur along the shoreline of Lake Tahoe.

9.4 ENVIRONMENTAL CONSEQUENCES AND MITIGATION MEASURES

9.4.1 Methods and Assumptions

Each of the Shoreline Plan alternatives is examined in light of the maximum potential for shoreline development or redevelopment, the nature and character of that development, and where it would be likely to occur. In addition, the analysis considers the effects of implementing design standards, shoreland scenic improvements, and visible mass offsets required under each alternative. As described in Chapter 2, "Description of the Proposed Project and Alternatives," each alternative offers different standards that would affect the number, location, and design of new and redeveloped shoreline structures. For all of the alternatives, the existing scenic review assessment and analysis requirements would remain, with the exception of revised standards specifically described Chapter 2 of this EIS. The scenic quality regulations outlined in Chapter 66 of the TRPA Code of Ordinances would remain under all alternatives.

No specific projects or shoreline structures are proposed or would be approved as a result of the Shoreline Plan. Therefore, the analysis evaluates the maximum amount of shoreline development that could occur under each alternative consistent with the standards that would apply under each alternative. It is important to note that any new or redeveloped shoreline structures would be subject to project-specific environmental review requirements, as well as a project review for consistency with the required standards.

The analysis considers scenic threshold monitoring data, shoreline character types, and the potential locations of new shoreline structures to identify the shoreline scenic travel units that have the greatest potential for scenic degradation under the alternatives. Seven key viewpoints (KVPs) were identified that provide views of those portions of the shoreline that have the greatest risk of scenic degradation.

Visual simulations were prepared for each KVP. Each simulation shows a worst-case scenario in that it depicts the maximum number and size of shoreline structures that could occur within each view. For each simulation, the number of parcels within the view and the number of existing shoreline structures was determined. Then, the maximum number of additional piers and moorings allowable under each alternative was calculated and those additional structures were depicted in the simulation. Pier simulations depict the maximum length of piers allowed at each location based on a review of the pierhead line and site-specific bathymetry. A variety of mooring types (e.g., buoys and boat lifts) and pier types (e.g., single- and multiple-use piers) were included in the simulations where allowed under an alternative, to depict the range of structures that could be developed under each alternative.

Methods that comprise the TRPA scenic threshold monitoring system are used to evaluate the scenario depicted in each simulation. The method is based on visual characteristics of the landscape (TRPA 2010b). The condition of these characteristics, when considered as a group and expressed as a numerical rating, represents the relative level of excellence in scenic quality that the visual landscape exhibits. Assessing the

condition of the characteristics under pre- and post-project scenarios provides an understanding of the status of scenic quality and the visual effect of a proposed action.

This analysis also quantifies the expected change in visible mass that could occur from the complete build-out of all new structures authorized under each alternative. This visible mass analysis accounts for visible mass limitations and offsets required under each alternative, and the analysis identifies cumulative net changes in visible mass on Lake Tahoe that could occur under each alternative.

9.4.2 Significance Criteria

Significance criteria relevant to scenic resources are summarized below. The applicable TRPA threshold standards, the scenic criteria from the TRPA Initial Environmental Checklist, and other relevant information were considered in the development of the significance criteria. An impact would be considered significant if it would:

- ▲ Decrease the TRPA Travel Route or Scenic Quality rating for roadway or shoreline travel units, or bicycle trails and recreation areas.
- ▲ Be inconsistent with the TRPA SQIP, TRPA Design Review Guidelines, or applicable height and design standards.

9.4.3 Environmental Effects of the Project Alternatives

Impact 9-1: Alter views of the shore from Lake Tahoe

The effects Alternatives 1, 2, and 3 on views from Lake Tahoe would vary based on the location, intensity, and other characteristics of future projects. In some scenarios under Alternatives 1 and 3, the scenic threshold ratings would increase due to required scenic improvements in the shoreland, visible mass reductions, and redevelopment of existing shorezone structures consistent with proposed design standards. In other scenarios under Alternatives 1, 2, and 3, scenic quality could be unchanged or degraded due to additional visible mass associated with new buoys, redeveloped piers that are a contrasting color, or in the case of Alternative 2, from additional visible structures in the shorezone that are not compensated for with reductions in the visual magnitude of development in the shoreland. This would be a **significant** impact for Alternatives 1, 2, and 3.

Due to the limited number of new shorezone structures that could be developed under Alternative 4, the project-level scenic assessment and mitigation requirements for public piers, and the prohibition of other new or expanded shoreline structures, Alternative 4 would have a **less-than-significant** impact.

The mitigation measures would require offsets for new visible mass associated with buoys, regulate the color of piers to prohibit undesirable contrast, and in the case of Alternative 2, require that minimum contrast ratings be achieved for parcels with new or expanded piers. These mitigation measures would reduce the impact to a **less-than-significant** level for Alternatives 1, 2, and 3.

Each of the alternatives would allow for some new shoreline structures. New shoreline structures could reduce the unity or intactness of views from Lake Tahoe toward the shoreline. New shoreline structures would not be distributed evenly around the shoreline. Instead, they would tend to be denser in areas with residential or mixed-use development along the shore because these developed areas have more private parcels with development potential. The visual effect of shoreline structures would also vary depending on their location. Dense clusters of shoreline structures would tend to have a greater visual impact than more dispersed or isolated structures.

The visual effects of shoreline structures would vary depending on the shoreline character type within which they occur. In visually dominated character types, new shoreline structures would have limited impacts on scenic quality because the shoreline is already visually dominated by intensive human-made development in these areas.

In visually modified character types, the effect of new shoreline structures on scenic quality would depend on the size, design, and density of the structures. Additional shoreline structures that are consistent with the size and visual character of existing structures would have more limited effects than large structures or dense clusters of structures. Most of the private land and development potential along the shoreline is within visually modified character types.

Visually sensitive character types contain long expanses of sandy beaches, which increase the visual prominence of shoreline structures and make them more difficult to screen. Shoreline structures have a greater potential to degrade the scenic quality of visually sensitive character types than other character types.

Natural dominated character types are associated with public lands and they tend to have the high scenic quality due to their undeveloped state, intact natural features, and, in some cases, visible historic features. New shoreline structures in natural dominated character types could adversely affect the scenic quality of these areas depending on the specific location, design, size, and visual compatibility of the individual structures. However, because natural dominated character types are associated with national forest, state parks, and other public lands, these areas would not be affected by new private shoreline structures and are therefore less likely to be degraded than other character types.

The effect of shoreline structures on scenic quality is also more pronounced in areas where existing shoreline development degrades the scenic quality such as travel units where scenic thresholds are not in attainment. In these non-attainment areas, additional shoreline structures could contribute to visual clutter and further decrease scenic threshold ratings, making it less likely that the TRPA scenic thresholds would be attained.

Table 9-1 shows the relative risk of scenic quality degradation in each shoreline travel unit based on the considerations described above. The travel unit name and threshold attainment status are listed, and the table indicates whether each unit contains visually sensitive character types. The estimated percentage of new private piers was calculated based on an assessment of private littoral parcels that could be eligible for private piers under each alternative. The likely location of new buoys, public piers, and other structures is not known. However, the locations of other private structures would be closely associated with private land ownership and would generally be similar to the distribution of new private piers. Therefore, the estimated distribution of new private piers serves as a proxy estimate for new private shoreline structures.

Travel units are considered to have a high risk of scenic degradation if they are currently not in attainment of threshold standards, include visually sensitive character types, and are estimated to receive 5 percent or more of the new private piers allowed under an alternative. If a travel unit meets two of those three criteria, it is considered to have a moderate risk of scenic degradation. Travel units are considered to have a low risk of scenic degradation if they meet less than two of those criteria.

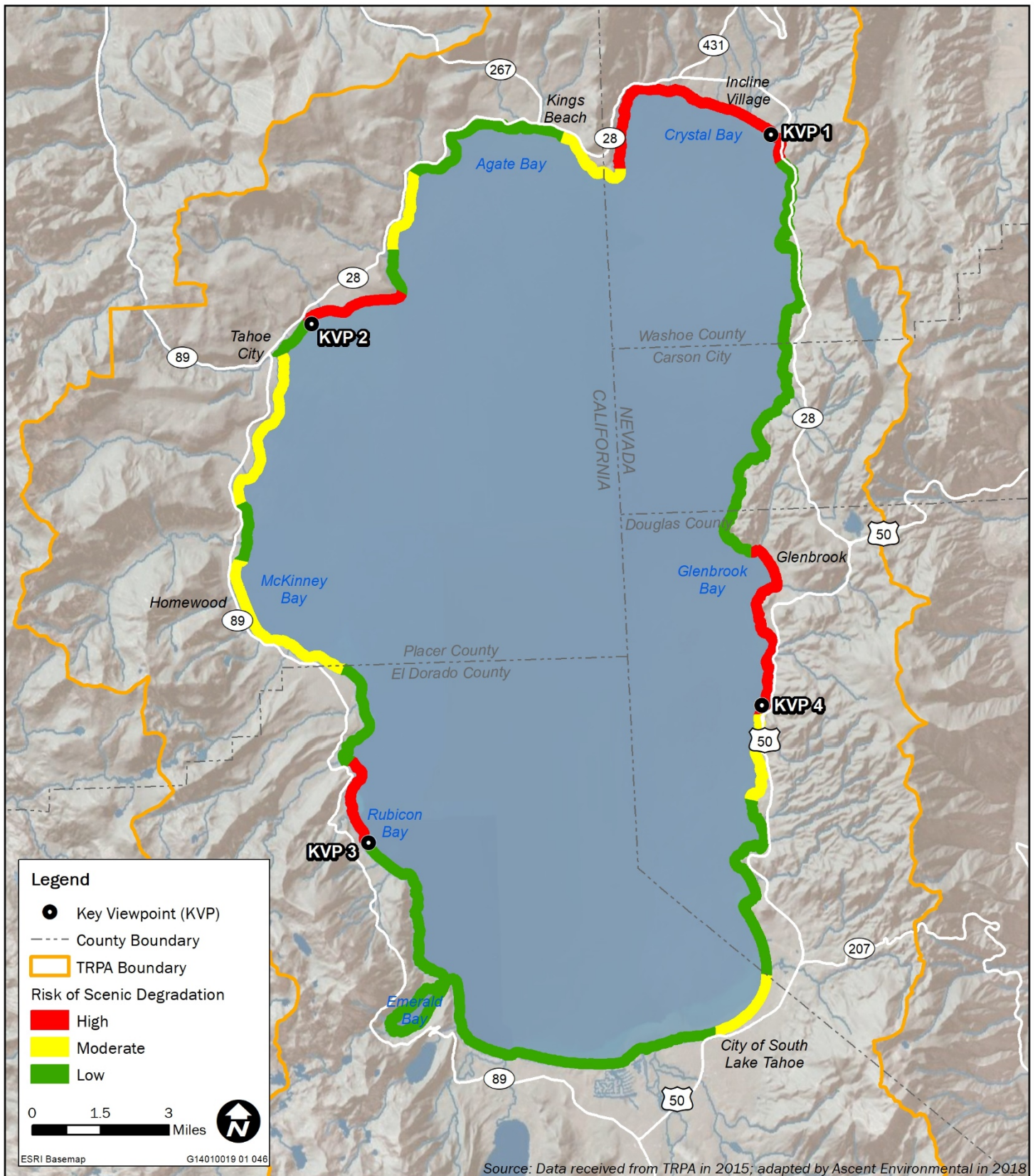
As shown in Table 9-1, the Crystal Bay, Rubicon Bay, Lake Forest and Cave Rock shoreline travel units have the greatest potential for scenic degradation from the Shoreline Plan alternatives. The Crystal Bay travel unit has the highest risk for scenic degradation because the existing scenic quality rating is considerably worse than the threshold standard, it has worsening trend in scenic quality, it contains visually sensitive character types, and it includes more parcels potentially eligible for new private piers than any other travel unit.

Exhibit 9-12 shows the location of scenic shoreline travel units with a high, moderate, and low risk of scenic degradation. It also shows the location of four KVPs that were selected to show views of the locations that have the greatest risk of scenic degradation. KVPs 1 through 4 include views from Lake Tahoe looking toward the shore, and are evaluated for each alternative, below.

Table 9-1 Relative Risk of Scenic Degradation for Shoreline Travel Units

| Shoreline travel unit | Threshold attainment status | Includes visually sensitive character type | Estimated percent of new private piers within unit (Alternatives 1 and 3) | Estimated percent of new private piers within unit (Alternative 2) | Risk of scenic degradation |
|------------------------|---|--|---|--|----------------------------|
| 1. Tahoe Keys | Attainment | Yes | 0 | 7 | Low |
| 2. Pope Beach | Attainment | Yes | 0 | 0 | Low |
| 3. Jameson Beach | Attainment | Yes | 0 | 1 | Low |
| 4. Taylor Creek | Attainment | No | 0 | 1 | Low |
| 5. Ebright | Attainment | No | 2 | 2 | Low |
| 6. Emerald Bay | Attainment | No | 0 | 1 | Low |
| 7. Bliss State | Attainment | No | 0 | 1 | Low |
| 8. Rubicon Point | Attainment | Yes | 0 | 2 | Low |
| 9. Rubicon Bay | Non-Attainment | Yes | 11 | 10 | High |
| 10. Meeks Bay | Attainment | Yes | 1 | 2 | Low |
| 11. Sugar Pine Point | Attainment | No | 0 | 0 | Low |
| 12. McKinney Bay | Attainment | No | 12 | 5 | Moderate |
| 13. Eagle Rock | Attainment | No | 4 | 0 | Low |
| 14. Ward Creek | Non-Attainment | Yes | 6 | 3 | Moderate |
| 15. Tahoe City | Non-Attainment (Considerably worse) | No | 2 | 1 | Low |
| 16. Lake Forest | Non-Attainment (Considerably worse) | Yes | 6 | 5 | High |
| 17. Dollar Point | Attainment | No | 0 | 0 | Low |
| 18. Cedar Flat | Non-Attainment | No | 6 | 1 | Moderate |
| 19. Carnelian Bay | Non-Attainment | No | 2 | 0 | Low |
| 20. Flick Point | Attainment | No | 3 | 2 | Low |
| 21. Agate Bay | Attainment | Yes | 2 | 4 | Moderate |
| 22. Brockway | Non-Attainment | Yes | 2 | 4 | Moderate |
| 23. Crystal Bay | Non-Attainment (Considerably worse, declining trend) | Yes | 17 | 15 | Highest |
| 24. Sand Harbor | Attainment | Yes | 0 | 1 | Low |
| 25. Skunk Harbor | Attainment | No | 0 | 3 | Low |
| 26. Cave Rock | Non-Attainment | Yes | 9 | 8 | High |
| 27. Lincoln Park | Non-Attainment | Yes | 4 | 4 | Moderate |
| 28. Tahoe School | Attainment | No | 0 | 1 | Low |
| 29. Zephyr Cove | Attainment | Yes | 1 | 3 | Low |
| 30. Edgewood | Non-Attainment | Yes | 0 | 0 | Low |
| 31. Bijou ¹ | Attainment | Yes | 9 | 9 | Moderate |
| 32. Al Tahoe | Attainment | NO | 1 | 3 | Low |
| 33. Truckee Marsh | Attainment | No | 0 | 1 | Low |

Notes: ¹ Bijou travel unit is considered a moderate rather than high risk of scenic degradation because the number of structures placed in that unit would likely be much lower than the nine percent shown, because that unit is comprised almost entirely of Shorezone Tolerance District 1, which limits development potential.



Alternative 1: Shoreline Plan

Alternative 1 would allow for up to 138 new piers (10 public and 128 private), two public boat ramps, and 2,116 new moorings, which would include a combination of buoys, boat lifts, and slips. These new structures, and the redevelopment of existing structures would be subject to design and location standards, and scenic requirements described in Chapter 2, “Description of the Proposed Project and Alternatives.” In addition, Alternative 1 would allow littoral property owners to bank scenic improvements. This would incentivize property owners to implement scenic improvements sooner because they could apply the scenic improvements toward a future shoreline project.

Piers

The 128 new private piers allowed under Alternative 1 would be distributed to individual jurisdictions to prevent dense clusters of new piers along any portion of the shoreline. The pier distribution requirements would limit the total number of new piers in each jurisdiction as follows: Placer County – 58, El Dorado County – 28, Washoe County – 21, and Douglas County/Carson City Rural Area – 21. In addition, Alternative 1 would limit the number of new piers within visually sensitive character types to no more than 19, and would proportionately distribute those piers in visually sensitive character types to individual jurisdictions to prevent the dense clustering of piers within any one area containing a visually sensitive character type. New private piers would not be allowed within Shoreline Preservation Areas or Stream Mouth Protection Areas (see Exhibit 2-13 in Chapter 2, “Description of the Proposed Project and Alternatives”).

Alternative 1 would promote multiple-use piers as a way to reduce overall pier development potential while increasing the number of littoral property owners with access to a pier. Up to 26 of the new private piers could be individual private piers, and the remainder (102) would be multiple-use piers. While multiple-use piers would require deed restrictions that can reduce the overall number of piers that could be constructed, each multiple-use pier can be larger than an individual private pier, and therefore, would have a greater visual effect.

Each new or redeveloped pier would be required to comply with design standards that address the pier length, width, setbacks, location, number of boat lifts, and total visible mass (see Table 2-6 in Chapter 2, “Description of the Proposed Project and Alternatives”).

New or redeveloped individual private piers would be limited to 220 square feet of visible mass, and multiple-use piers would be allowed more visible mass depending on the number of parcels or residential units served by the pier. The largest multiple-use piers (serving 20 or more residential units or at least four littoral parcels) would be allowed a maximum of 520 square feet of visible mass.

Moorings

Alternative 1 would allow for up to 2,116 new moorings, which would include a combination of buoys, slips, and boat lifts. It is estimated that majority of these (2,006) would be buoys with approximately 65 slips and 45 boat lifts. Boat lifts would only be associated with piers and would be regulated as part of the pier, as described above. The scenic requirements that apply to piers would also apply to boat lifts. Slips within marinas would not be visible from the lake, or their visual impacts would be mitigated as part of a marina expansion project. However, the estimated 2,006 buoys would be visible from the lake and could affect scenic quality.

New buoys could be placed either within a buoy field or outside of a buoy field, lakeward of individual littoral parcels. Buoys outside buoy fields could be located up to 600 feet lakeward from elevation 6,220 feet LTD, measured perpendicularly to the shore. This is an increase from the current limit of 350 feet from shore. Buoys would be required to be located a minimum of 20 feet from adjacent property boundaries and a minimum of 50 feet from other legally existing buoys. Buoy fields would be designed in a grid using the same setback and spacing standards as for littoral parcels (a minimum 20 feet from adjacent property boundaries and a minimum 50 feet from other legally existing buoys). TRPA could approve deviations from these standards based on site-specific considerations, and buoy fields associated with marinas could extend farther lakeward than 600 feet, if consistent with existing authorizations.

Buoys consist of an anchor block on the lakebed attached to a float on the surface of the lake. When a boat is not moored at a buoy, the only visible portion of the buoy is the float, which is typically a white sphere between one and two feet in diameter. When a boat is moored on a buoy, the visual effect of the buoy is much more pronounced. TRPA has estimated that the typical visible mass of a boat on a buoy is approximately 83 square feet (TRPA 2017b, 2017c). During the boating season (May through September), the percentage of buoys with a boat moored to it ranges from approximately 22 percent on a weekday during the early or late boating season, to approximately 63 percent on a summer holiday weekend. Thus, the visual effect of buoys would vary throughout the year depending on the number of boats moored on buoys.

Alternative 1 would not require scenic offsets or improvements associated with new buoys. Thus, Alternative 1 would allow for an estimated 2,006 buoys consistent with location standards. The visual effect of these buoys would vary over time depending on whether they are in use, and these visual effects would not be offset by scenic improvements.

Public Facilities and Marinas

Alternative 1 would allow for new public facilities including 10 new public piers, two new public boat ramps, and expansions of existing marinas. The new public piers could deviate from the design standards described above to the extent necessary to serve their public purpose. Public piers that deviate from standards would be evaluated on a case-by-case basis, and mitigation would be required where necessary to avoid significant effects on scenic quality. Any new or expanded public piers would be required to comply with the visible mass offsets described below.

Up to two new public boat ramps could be constructed. New boat ramps would be required to comply with the same visible mass offsets as piers, such that any new boat ramp would result in a net decrease in the amount of mass of human-made structures visible from the lake. Alternative 1 would also allow marinas to expand to add additional slips or buoys.

The locations and characteristics of possible new public boat ramps or marinas cannot be known at this time. If, and when a new public boat ramp or marina expansion is proposed, it would be required to undergo an environmental review and scenic assessment including an evaluation of the visual magnitude of the project area as required by TRPA Code Section 66.3. As documented in the 2015 Threshold Evaluation Report, the visual magnitude requirements of the TRPA Code have resulted in improved scenic conditions along the shoreline (TRPA 2016). Compliance with these requirements would prevent scenic degradation from public boat ramps and marinas.

Visible Mass

Visible mass is defined by TRPA as the total visible area of a shoreline structure, including all elements of the structure. Visible mass is calculated by summing the area above elevation 6,226 LTD (in square feet) of visible elements of the structure when viewed in profile (i.e., parallel to the shore), and the area of visible elements of the structure when viewed from the end (i.e., perpendicular to the shore).

New shoreline structures would add visible mass to the shoreline or surface of Lake Tahoe. Scenic offsets, in the form of removing or screening existing visible mass that can be seen from Lake Tahoe, would be required for any new or redeveloped pier, boat lift, boat ramp, or marina that results in a net increase in visible mass. Scenic improvement would be required as close to the proposed structure as feasible. TRPA would prioritize the location of scenic offsets as follows: 1) on the same parcel in the shorezone, 2) on the same parcel in the upland area, 3) elsewhere in the shorezone within the same shoreline scenic travel unit, 4) within the same travel unit in the upland, and 5) in another nonattainment scenic travel unit. Scenic offset requirements would increase with the scenic sensitivity of the developing parcel's location, as follows:

- ▲ in visually dominated character types, the visible mass offset ratio would be 1:1.5;
- ▲ in visually modified character types, the visible mass offset ratio would be 1:2; and
- ▲ in visually sensitive character types, the visible mass offset ratio would be 1:3.

While the visual effect of any shoreline structure depends on numerous factors such as the location and color of the structure, visible mass provides a broad quantitative tool to assess the visual effects of structures. Table 9-2 provides the estimated change in visible mass that would result from buildout of Alternative 1. While the actual visible mass would vary depending on the size and design of proposed shoreline structures, Table 9-2 provides an approximate estimate based on conservative assumptions.

Table 9-2 Change in visible mass under Alternative 1

| Structure | Typical Visible Mass per Structure (sq. ft.) | Number of Structures | Additional Visible Mass (sq. ft.) | Estimated Required Screening (sq. ft.) ⁶ | Net Change in Visible Mass (sq. ft.) |
|---|--|----------------------|-----------------------------------|---|--------------------------------------|
| Private Multiple-Use Piers ¹ | 520 | 102 | 53,040 | 115,960 | -62,920 |
| Private Single-Use Piers ¹ | 220 | 26 | 5,720 | 11,440 | -5,720 |
| Public Piers ² | 1,400 | 10 | 14,000 | 35,000 | -21,000 |
| Boat Lifts ³ | 83 | 45 | 3,735 | 8,051 | -4,316 |
| Boat Ramps ⁴ | 323 | 2 | 646 | 1,615 | -969 |
| Buoys ⁵ | 83 | 2,006 | 166,498 | 0 | 166,498 |
| Total | | | 243,639 | 172,066 | 71,573 |

Notes:

- ¹ Visible mass of private piers reflects maximum allowable for single-use piers and multiple use piers serving four or more littoral parcel owners
- ² Visible mass of public piers based on visible mass calculations for proposed Kings Beach pier rebuild EIR/EIS (TRPA and State Parks 2018)
- ³ Visible mass of boat lifts based on estimates of the typical visible mass of boat lifts prepared by TRPA for a scenic assessment training (TRPA 2017b)
- ⁴ Visible mass of new boat ramp based on visible mass drawings of Kings Beach SRA boat ramp and accessory structures (TRPA and State Parks 2018)
- ⁵ Visible mass of boats on buoys based on estimates of the average visible mass of boats prepared by TRPA to inform the Shoreline Steering Committee and to support scenic assessment trainings (TRPA 2017b, 2017c), and assumes all buoys would have boats
- ⁶ Required screening assumes 19 private multi-use piers, 5 public piers, 7 boat lifts, and 1 boat ramp would be placed in visually sensitive shoreline areas (1:3 offset) and remainder in visually modified shoreline areas (1:2 offset), based on proposed limits on structures within visually sensitive areas

As shown in Table 9-2, new piers, boat lifts, and boat ramps would add visible mass. However, the visible mass offset requirements would require the removal or screening of other existing visible mass at a greater than 1:1 ratio. Thus, these structures would result in a net decrease in the amount of visible mass along the shoreline or on the surface of Lake Tahoe.

New buoys would also contribute visible mass and, as described above, this additional visible mass would not be required to be offset. Under a worst-case scenario (i.e., assuming every buoy had a boat moored to it), each buoy would contribute an average of 83 square feet of visible mass. The estimated 2,006 new buoys would contribute an estimated 166,498 square feet of additional visible mass. Even after the net decrease in visible mass required for other structures is considered, Alternative 1 would result in an estimated net increase of approximately 72,000 square feet of visible mass due to new buoys.

Visual Magnitude of the Shoreland

In addition to offsetting increases in visible mass, Alternative 1 would require that shoreland properties achieve minimum contrast ratings as part of the approval process for new piers (see description of the visual magnitude system in Section 9.2, “Regulatory Setting,” above). For new private piers, TRPA would require an initial contrast rating of 21 as part of the pier application. Following permit submittal, applicants would have 6 months to increase their contrast rating to 25 to offset the visual impact of new or redeveloped piers. TRPA would exempt property owners from the contrast rating of 25 if it is not feasible to achieve it. As described above, contrast ratings are calculated for parcels along the shoreline based on the color, texture, articulation, amount and reflectivity of glass, and amount of visible perimeter of structures visible from the lake. Thus, prior to authorizing a new pier, TRPA would require that the project area complete feasible scenic improvements to development along the shore to achieve a minimum contrast rating. Such improvements could include, but are not limited to:

- ▲ repainting or residing buildings with a darker earth tone color that blends into the background;
- ▲ planting trees or other vegetation to visually screen the perimeter of a structure and reduce its visible silhouette;

- ▲ removing fences, sheds, walls, or other features visible from the lake;
- ▲ replacing standard windows with anti-reflective glass; and/or
- ▲ resurfacing structures with textured materials (e.g., covering a smooth wall with a natural stone veneer).

Key View Point 1 – Visually Modified Character Type in Crystal Bay, Alternative 1

KVP 1 is located approximately 450 feet offshore of the eastern side of the Crystal Bay Shoreline Travel Unit facing northeast. The KVP shows a visually modified character type. Exhibit 9-13 shows the existing view and a simulation of buildout of Alternative 1 as seen from KVP 1.

Existing View

The existing view includes four piers and four buildings. On the left edge of the view, a residence is visible but does not stand out because it is a dark brown color and partially screened by conifers. To the right of that residence is a short, light-color pier with double pilings and a personal watercraft on a lift. Above the pier is a tan residence that is partially screened behind a small conifer. To the right of that residence is an L-shaped dark brown rock-crib style pier. While this pier is a similar length as the other piers in the view, it is much more visually prominent due to its design. The L shaped design presents a larger visible surface when viewed from the lake, and the rock crib design creates substantially more visible mass than an open piling design. Above the L-shaped pier is a parking area with vehicles partially visible through the trees. To the right and below the parking area is another pier that is a similar length as the other piers in the view, however it appears larger because it is not perpendicular to the shore. The orientation results in more of the pier being visible from the lake than similar piers that are oriented perpendicular to the shore. Above that pier is a large light-colored building, the roof and walls of which are partially visible through the trees. On the right side of the existing view is another light-colored pier with double pilings and a partial railing. Four buoys are visible in the existing view, none of which have boats.

Simulation

The simulation shows the same view if each parcel were to redevelop consistent with the standards and requirements of Alternative 1. The simulation includes five piers and two additional boat lifts and one additional buoy. On the left side of the view, the existing residence is unchanged because the dark color and existing screening would likely already meet the minimum contrast rating of 25 required by Alternative 1. The short, light-colored pier on the left side of the existing view is replaced with a longer, single piling pier in the simulation. The simulated pier is shown without superstructures (i.e., structures above the pier deck), which would be prohibited under Alternative 1. The pier is also depicted with a low visual profile, single-piling design because this type of design would be necessary to comply with the maximum 220 square feet of visible mass allowed for an individual private pier under Alternative 1. As with the existing pier, the simulated pier includes a personal watercraft on a boat lift. Above that pier, the existing tan residence is shown as a dark brown color with additional vegetative screening along the lower portion of the structure. These changes would be necessary to achieve the minimum required contrast rating of 25.

The existing L-shaped rock crib style pier is replaced with a new pier consistent with design standards. The new pier is approximately the same length as the existing pier, which already reached the pier headline (the maximum length that an individual private pier could achieve in this area), but a new boat lift with a personal watercraft has been added. No changes are shown at the parking area above that pier, because the contrast rating requirements would not address vehicles parked along the shoreline. To the right and below the parking area, the existing double-piling pier is replaced with a single-piling pier that is oriented perpendicular to the shore, as required by Alternative 1. Above that pier, the large light-colored building is shown in a dark brown color, as would be required to achieve the minimum contrast rating. Below that building, a new pier with a boat lift has been added, and the existing pier on the right side of the view is retained with no changes. A new buoy with a boat is visible on the right side of the view, and this buoy is placed farther from the shore than the existing buoys, as allowed by Alternative 1.

Existing View



Simulation



Source: Existing photo taken by TRPA in 2016; Simulation prepared by Square One Productions in 2018

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**Exhibit 9-13 Key View 1 – Visually Modified Character
Type in Crystal Bay, Alternative 1**



Overall, buildings and other development in the shoreland are less visible in the simulation due to scenic improvements that would be required to attain minimum contrast ratings. The simulation shows one additional pier which, with compliance with Alternative 1 design standards and visible mass regulations, decreases the overall visual prominence of piers. The most visually prominent feature in the simulation is the new boat on a buoy, which is located farther lakeward than the existing buoys. Taken together, the changes shown in the simulation of KVP 1 would improve the intactness of the view and would not degrade scenic quality.

Key View Point 2 – Visually Modified Character Type Near Lake Forest, Alternative 1

KVP 2 is located approximately one quarter mile (1,300 feet) offshore of the western side of the Lake Forest Shoreline Travel Unit facing northeast. The KVP shows a visually modified character type. Exhibit 9-14 shows the existing view and a simulation of buildout of Alternative 1 as seen from KVP 2.

Existing View

The existing view includes a portion of a buoy field in the foreground, and four piers (approximately 250–280 feet in length) in the middleground within the left half of the view. On the right side of the view, four shorter piers (approximately 80–100 feet in length) are visible in the background. In the shoreland, four large residences are clearly visible on the right side on the view. Another five residences are visible on the right side of the view, but they are less prominent than the residences on the left of the view. Three additional residences are visible on the hillside behind the shoreland, including a prominent building on the hilltop.

Simulation

In the simulation, two additional buoys with boats have been added to the left side of the view and two new individual private piers have been added near the center of the view. In addition, two of the existing large piers on the left side of the view are shown as being expanded into multiple-use piers with two boat lifts each. These multiple-use piers would also serve property owners that are outside of the view, which would reduce the shoreline development potential for those properties. Two of the existing shorter piers on the right side of the view are shown as expanded piers of approximately 200 feet in length, which is the longest individual private pier that could be approved in this area. Two new boats on buoys are visible on the right side of the view.

In the simulation, the pier on the left edge of the view is unchanged and is associated with a residence that is to the left and outside of the view. The second pier from the left, which is associated with the residence on the left side of the view is also unchanged. The third pier from the left is shown as a slightly longer multiple-use pier. This pier is associated with the second residence from the left, but that residence is shown as unchanged because the existing structure is partially screened and a dark color that would likely already meet the minimum contrast rating.

The third residence from the left is a very large and visually prominent structure. In the simulation the existing pier in front of this residence is expanded as a multiple-use pier, but is shown as a low-profile single piling design, which would be necessary to comply with the visible mass limitations. Additional vegetative screening is shown along the lower portion of this residence as would be required to achieve the minimum required contrast rating.

Two new piers are shown in the simulation near the fourth and fifth residences from the left. Each residence is shown in a darker color to achieve the minimum required contrast rating. A small structure on the beach has been removed, and additional vegetative screening has been added in front of each residence, which would be required to meet the visible mass offsets required for the new piers.

On the right side of the view, two existing piers are replaced with expanded individual private piers that extend to the pierhead line, approximately 200 feet off shore. No scenic improvements are shown for the residences on the right side of the view because the dark color and vegetative screening of those residences is expected to already meet the minimum contrast rating and any visible mass offsets required for the expanded piers would not be visible from this viewpoint.

Existing View



Simulation



Source: Existing photo taken by TRPA in 2016; Simulation prepared by Square One Productions in 2018

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**Exhibit 9-14 Key View 2 – Visually Modified Character
Type Near Lake Forest, Alternative 1**



In the simulation of Alternative 1 from KVP 2, development in the shoreland is less visible due to scenic improvements that would be required to attain minimum contrast ratings and visible mass offset requirements. The simulation shows two additional piers which, with compliance with Alternative 1 design standards and visible mass regulations, does not substantially increase the overall visual prominence of piers. Taken together, the changes shown in the simulation of KVP 2 would not degrade the scenic quality of the view.

Key View Point 3 – Visually Sensitive Character Type in Rubicon Bay, Alternative 1

KVP 3 is located approximately 650 feet offshore of the southern end of the Rubicon Bay Shoreline Travel Unit, facing west. The KVP shows a visually sensitive character type. Exhibit 9-15 shows the existing view and a simulation of buildout of Alternative 1 as seen from KVP 3.

Existing View

The existing view includes five individual private piers and six residences that are mostly screened by existing vegetation. On the left side of the existing view is an approximately 140-foot-long pier, followed by a short (approximately 50-foot-long) pier, then another approximately 140-foot-long pier with a boat lift. Near the center of the existing view is an approximately 120-foot-long pier with a double piling design and a covered boat lift. On the right side of the existing view is an approximately 160-foot-long pier with a double piling design and a boat lift. The most visible structures in the shoreland are a light-colored structure with a rooftop deck near the center-right of the view, and a residence on the right side of the view.

Simulation

Because this view shows a visually sensitive character type, any new piers authorized under Alternative 1 would be restricted to multiple-use piers, and any increase in visible mass would be offset at a 3:1 ratio. The simulation shows the placement of two multiple-use piers within the view. Because multiple-use piers require shared access by multiple littoral properties, the simulation shows the removal of the four existing piers on the left side of the view, which are replaced by the two larger multiple-use piers. The new multiple-use pier on the left side of the view includes two boat lifts and is approximately 190 feet, or approximately 30 feet longer than the longest existing pier in the view. This reflects a multiple-use pier serving three littoral parcels. The multiple-use pier on the right is also approximately 190 feet in length and includes four boat lifts, reflecting a multiple-use pier serving five littoral parcels. The existing pier on the right side of the view remains unchanged, and a swim platform has been added to the left of that existing pier. Two new boats on buoys are shown on the left side of the view. In the shoreland, the small structure on the beach is removed and the other residences are shore in darker colors with some additional vegetative screening, which would be required to meet minimum contrast ratings and to partially offset the visible mass of the new piers.

Because the existing structures are mostly screened from view by vegetation, there are limited opportunities to achieve the required visible mass offsets within this view. Therefore, additional removal or screening of visible mass would be required to occur outside of this view to meet the 3:1 visible mass offsets required for the two new piers.

The simulation shows the removal of four individual private piers, and the construction of two larger multiple-use piers serving a combined eight littoral parcels, some of which would be outside of the view. Overall, the visual prominence of development in the shoreland is slightly reduced in the simulation due to contrast rating and visible mass requirements of Alternative 1. The visual clutter in the shorezone is also slightly reduced due to the consolidation of several individual private piers into fewer multiple-use piers. However, the additional length and visible mass of the new multiple-use structures makes those piers more visually prominent than the existing piers. These larger piers, as well as the new buoys, slightly reduce the intactness of this view, which could contribute to a reduction in scenic quality. However, the required 3:1 offset of visible mass in a visually sensitive character type would mean additional visible mass removal or screening outside of this view, and within the same shoreline travel unit, if feasible. Therefore, the slight reduction in the scenic quality of this view would be offset by visible mass reductions and scenic improvements elsewhere in the scenic travel unit, and the threshold standard for the travel unit would not be reduced.

Existing View



Simulation



Source: Existing photo taken by TRPA in 2016; Simulation prepared by Square One Productions in 2018

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**Exhibit 9-15 Key View 3 – Visually Sensitive Character
Type in Rubicon Bay, Alternative 1**



Key View Point 4 – Visually Modified Character Type Near Cave Rock, Alternative 1

KVP 4 is located approximately 575 feet offshore of the southern end of the Cave Rock Shoreline Travel Unit facing southeast. The KVP shows a visually modified character type. Exhibit 9-16 shows the existing view and a simulation of buildout of Alternative 1 as seen from KVP 4.

Existing View

The existing view includes seven residences in the shoreland with varying amounts of visual screening. Several small structures are visible along the shoreline below the residences. Three boulder breakwaters are visible: one on the left, one in the center, and one on the right of the view. On the left side of the view, an approximately 90-foot-long pier with a double piling design and a boat lift is visible. Near the center of the view, an approximately 90-foot L-shaped rock crib pier is visible. Another L-shaped rock crib pier of approximately 120 feet in length is visible on the right side of the view. Six boats on buoys are also visible.

Simulation

In the simulation, two new individual private piers are added, and the three existing piers are expanded to the maximum allowable length. Two new boat lifts and an additional boat on a buoy are also shown.

On the left side of the simulation the existing pier is replaced with an expanded pier of approximately 145 feet in length (the maximum length that could be allowed in this area). An expanded boat lift is also shown on this pier. A small shed near the base of the existing pier is removed to reflect the visible mass offsets that would be required for the pier expansion. To the right of that pier is a new pier of approximately 150 feet in length. The existing residence above the new pier is shown in a darker color, which would be required to meet the minimum contrast rating. Some additional vegetative screening is included around that residence, to depict the required visible mass offsets.

Near the center of the simulation is another new pier extending approximately 120 feet in length. The residence above that pier is shown in a slightly darker color to meet the contrast rating requirements, and some additional vegetative screening is added to depict the required visible mass offsets. To the right of that pier, the existing rock crib pier is removed and replaced with a new pier with a boat lift, and a buoy with a boat. The residence behind this pier is shown in a darker color with some additional vegetative screening. On the right side of the view, the other existing rock crib pier is replaced with a floating pier. No additional screening is shown in this area, because the replacement of the rock crib pier with a floating pier would not result in a net increase in visible mass.

In the simulation of Alternative 1 from KVP 4, development in the shoreland is less visible due to scenic improvements that would be required to attain minimum contrast ratings and visible mass offset requirements. The simulation shows two new piers and removal of the existing L-shaped rock crib piers. This change reduces overall visible mass, but the new and expanded piers add visual clutter. The piers are shown in a light to medium brown color that contrasts with the grey color of the water and rocky shoreline in this view. This contrast makes the new and expanded piers more visually prominent than the existing piers and reduces the intactness of the view. Taken together, the changes shown in the simulation of KVP 4 could degrade the scenic quality of the view, largely due to the contrasting color of the piers and the additional mass of the boat on a buoy, which is not offset.

Conclusion

As described above, Alternative 1 would authorize new shorezone structures that could affect views from Lake Tahoe toward the shore. New and redeveloped structures would be required to comply with applicable design standards addressing the location, length, width, orientation, and maximum visible mass. The visible mass of piers would be restricted, and all piers, boat lifts, boat ramps, marinas, or other similar structures would be required to offset increases in visible mass at ratios that would result in a net reduction in the amount of visible mass that can be seen from Lake Tahoe. In addition, these structures would be evaluated under the visual magnitude system in TRPA Code Section 66.3. New or expanded structures would require scenic improvements in the shoreland to achieve minimum required contrast ratings.

Existing View



Simulation



Source: Existing photo taken by TRPA in 2016; Simulation prepared by Square One Productions in 2018

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**Exhibit 9-16 Key View 4 – Visually Modified Character
Type Near Cave Rock, Alternative 1**



New buoys would be allowed to be placed farther from the shore than under existing conditions. The visible mass associated with buoys would not be offset, and projects adding buoys would not be required to implement scenic improvements through the visual magnitude system.

The effects of buildout of Alternative 1 would vary based on the location, intensity, and other characteristics of future projects. In some situations, the intactness of views would be improved, and the scenic threshold ratings would increase due to required scenic improvements in the shoreland, visible mass reductions, and redevelopment of existing shorezone structures consistent with proposed design standards. In other situations, scenic quality could be unchanged, or the unity and/or intactness of views could be degraded, which would reduce the scenic threshold ratings. This potential reduction in scenic threshold ratings would be due to additional visible mass associated with new buoys, and/or new or redeveloped piers that are a color that contrasts with the background view. Because new visible mass of buoys and contrasting piers could degrade scenic threshold ratings, this would be a **significant** impact.

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

Alternative 2 would maintain the existing shorezone ordinances and the number of new structures would be limited by site-specific eligibility criteria, including a prohibition on new structures in prime fish habitat. It is estimated that Alternative 2 could allow for up to 476 new piers, six new public boat ramps, and 6,936 new moorings, which would include a combination of buoys, boat lifts, and slips. These new structures, and the redevelopment of existing structures would be subject to design and location standards, and scenic requirements described in Chapter 2, “Description of the Proposed Project and Alternatives.”

Piers

Unlike Alternative 1, Alternative 2 would not distribute new piers to individual jurisdictions to prevent dense clusters of new piers along any portion of the shoreline or limit the number of new piers within visually sensitive character types. As with Alternative 1, new piers would not be allowed within Stream Mouth Protection Areas, but Alternative 2 would not designate Shoreline Preservation Areas.

Each new or redeveloped pier would be required to comply with design standards that address the pier length, width, setbacks, location, and number of boat lifts (see Table 2-7 in Chapter 2, “Description of the Proposed Project and Alternatives”). Alternative 2 would not establish a numeric limit on the visible mass of piers, however it would require that piers either be floating or have an open pile design that is at least 90 percent open space, which would result in less visible mass than other designs. Alternative 2 would promote multiple-use piers by allowing them to deviate from design standards as described in Chapter 2, “Description of the Proposed Project and Alternatives.”

Moorings

As described for Alternative 1, boat lifts would only be associated with piers and would be regulated as part of the pier; slips would be within marinas and would not be visible from the lake, or their visual impacts would be mitigated as part of a marina expansion. However, the estimated 4,871 new buoys would be visible from the lake and could affect scenic quality. New buoys could be placed either within or outside a buoy field, lakeward of individual littoral parcels consistent with the standards described in Chapter 2. Buoys outside buoy fields could be located up to 350 feet lakeward from elevation 6,220 feet LTD, measured perpendicularly to the shore, which is less than allowed under Alternative 1. Alternative 2 would not require scenic offsets or improvements associated with new buoys.

Public Facilities and Marinas

Alternative 2 would allow for new public facilities including new public piers, six new public boat ramps, and up to 2 new marinas. The new public piers could deviate from the design standards described above to the extent necessary to serve their public purpose. Public piers that deviate from standards would be evaluated on a case-by-case basis, and mitigation would be required where necessary to avoid significant effects on scenic quality. Any new or expanded public piers would be required to comply with the visible mass offsets described below.

Up to six new public boat ramps could be constructed. New boat ramps would be required to comply with the same visible mass offsets as piers, such that any new boat ramp would result in a net decrease in the amount of mass of human-made structures visible from the lake. The locations and characteristics of possible new public boat ramps or marinas cannot be known at this time. If and when a new public boat ramp or marina is proposed, it would be required to undergo an environment review and scenic assessment including an evaluation of the visual magnitude of the project area as required by TRPA Code Section 66.3. As documented in the 2015 Threshold Evaluation Report, the visual magnitude requirements of the TRPA Code have resulted in improved scenic conditions along the shoreline (TRPA 2016). Compliance with these requirements would prevent scenic degradation from public boat ramps and marinas.

Visible Mass

As with Alternative 1, Alternative 2 would require scenic offsets, in the form of removing or screening existing visible mass that can be seen from Lake Tahoe, for any new or redeveloped pier, boat lift, boat ramp, or marina that results in a net increase in visible mass. Scenic offset requirements would be greater in shoreline travel units that are not in attainment of threshold standards as follows:

- ▲ In shoreline travel units that are not in attainment, the visible mass offset ratio would be 1:1.5; and
- ▲ In shoreline travel units that are in attainment, the visible mass offset ratio would be 1:1.

Table 9-3 provides the estimated change in visible mass that would result from buildout of Alternative 2. While the actual visible mass would vary depending on the size and design of proposed shoreline structures, Table 9-3 provides an approximate estimate based on conservative assumptions.

| Structure | Typical Visible Mass per Structure (sq. ft.) | Number of Structures | Additional Visible Mass (sq. ft.) | Estimated Required Screening (sq. ft.) ⁵ | Net Change in Visible Mass (sq. ft.) |
|-------------------------|--|----------------------|-----------------------------------|---|--------------------------------------|
| Piers ¹ | 518 | 476 | 246,568 | 308,210 | -61,642 |
| Boat Lifts ² | 83 | 168 | 13,944 | 17,430 | -3,486 |
| Boat Ramps ³ | 323 | 6 | 1,938 | 2,423 | -484 |
| Buoys ⁴ | 83 | 4,871 | 404,293 | 0 | 404,293 |
| Total | | | 666,743 | 328,063 | 338,681 |

Notes:

¹ Visible mass of piers based on new pier calculations from pier applications under existing Code (TRPA 2017b),

² Visible mass of boat lifts based on (TRPA 2017b)

³ Visible mass of new boat ramp based on visible mass drawings of Kings Beach SRA boat ramp and accessory structures (TRPA and State Parks 2018)

⁴ Visible mass of boats on buoys based on estimates of the average visible mass of boats prepared by TRPA to inform the Shoreline Steering Committee and to support scenic assessment trainings (TRPA 2017b, 2017c), and assumes all buoys would have 5 Required screening assumes 50% of all structures would be placed in travel units that are not in attainment (1:1.5 offset), remainder in units that are in attainment (1:1 offset), based on the percentage of parcels eligible for piers in each unit (see Table 9-1, above)

As shown in Table 9-3, new piers, boat lifts, and boat ramps would add visible mass. However, the visible mass offset requirements would require the removal or screening of other existing visible mass at a 1:1 or greater ratio. Thus, these structures would result in a net decrease in the amount of visible mass along the shoreline or on the surface of Lake Tahoe. New buoys would also contribute visible mass and, as described above, this additional visible mass would not be required to be offset. Under a worst-case-scenario (i.e., assuming every buoy had a boat moored to it), the estimated 4,871 new buoys would contribute an estimated 404,293 square feet of additional visible mass. Even after the net decrease in visible mass required for other structures is considered, Alternative 2 would result in an estimated net increase of approximately 339,000 square feet of visible mass due to new buoys.

Visual Magnitude of the Shoreland

Unlike Alternative 1, Alternative 2 would not require that new shoreline structures achieve minimum contrast ratings. New and redeveloped piers would not be evaluated under the visual magnitude system. New or expanded marinas and boat ramps would continue to be evaluated under the visual magnitude system and would be required to implement scenic improvements required by TRPA Code Section 66.3.

Key View Point 1 - Visually-Modified Character Type in Crystal Bay, Alternative 2

Exhibit 9-17 shows the existing view and a simulation of buildout of Alternative 2 as seen from KVP 1. The existing elements and their locations are described above under Alternative 1. The simulation shows one additional pier and four existing piers replaced with new individual private piers consistent with the design standards for Alternative 2, and one new boat on a buoy. This is the same level of development shown for Alternative 1, and the design standards for Alternative 2 would result in new individual private piers that appear similar to piers developed under Alternative 1.

Because KVP 1 is within a shoreline travel unit that is not in attainment, any increase in visible mass would be required to be offset at a 1.5:1 ratio. The simulation shows additional vegetative screening in front of the residences that are associated with new piers. The amount of screening is less than shown in the simulation of KVP 1 for Alternative 1, which would require screening at a 2:1 ratio. No new screening is shown in front of buildings associated with redeveloped piers because redevelopment of these piers consistent with the design standards in Alternative 2 would not substantially increase the visible mass of the piers (i.e., the piers could be longer, but compliance with the width and design standards in Alternative 2 would result in narrower and more streamlined designs, assumed to result in no increase in visible mass). Consequently, no visible mass offset would be required. These parcels would also not be required to achieve minimum contrast ratings for a pier redevelopment project, therefore no scenic improvements would be required in the shoreland for these parcels.

Overall, buildings and other development in the shoreland are very similar to the buildings in the existing view, but slightly less visible due to visible mass offsets for new piers that would be required by Alternative 2. The simulation shows one additional pier which, with compliance with design standards proposed in Alternative 2, decreases overall visual prominence. Taken together, the changes shown in the simulation of KVP 1 would maintain the intactness of the view and would not degrade scenic quality.

Key View Point 2 - Visually Modified Character Type Near Lake Forest, Alternative 2

Exhibit 9-18 shows the existing view and a simulation of buildout of Alternative 2 as seen from KVP 2. The existing elements and their locations are described above under Alternative 1. The simulation shows a similar number of piers as in Alternative 1, because this reflects the maximum number of piers that could be associated with the parcels in the view. Two additional buoys with boats have been added to the left side of the view and two new individual private piers have been added near the center of the view. In addition, two of the existing large piers on the left side of the view are shown as being expanded into multiple-use piers with two boat lifts each, and two of the existing shorter piers on the right side of the view are shown as expanded individual private piers. The two multiple-use piers on the left side of the view are each approximately 30 feet longer than the multiple-use piers shown for Alternative 1 because Alternative 2 would allow multiple-use piers to deviate from pier length limitations. Two new boats on buoys are visible on the right side of the view, and these buoys are closer to the shore than the ones shown under Alternative 1.

Because KVP 2 is within a shoreline travel unit that is not in attainment, any increase in visible mass would be required to be offset at a 1.5:1 ratio. The simulation shows additional vegetative screening in front of the residences associated with new piers. Very little new screening is shown in front of buildings associated with redeveloped piers because redevelopment consistent with Alternative 2 design standards would only slightly increase visible mass, which would require limited offsets. Alternative 2 would not require minimum contrast ratings and no additional scenic improvements would be required in the shoreland for new or redeveloped piers.

Existing View



Simulation



Source: Existing photo taken by TRPA in 2016; Simulation prepared by Square One Productions in 2018

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**Exhibit 9-17 Key View 1 - Visually-Modified Character
Type in Crystal Bay, Alternative 2**



Existing View



Simulation



Source: Existing photo taken by TRPA in 2016; Simulation prepared by Square One Productions in 2018

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**Exhibit 9-18 Key View 2 - Visually Modified Character
Type Near Lake Forest, Alternative 2**



Overall, buildings and other development in the shoreland are very similar to the existing view, but slightly less visible due to visible mass offsets that would be required by Alternative 2. The simulation shows two additional piers. With the additional piers and buoys, the overall visual prominence of structures on the lake is greater than in the existing view. This increase is not offset by a reduced visual magnitude of development in the shoreland. The changes shown in the simulation would reduce the intactness of the view, which could contribute to a reduction in the scenic quality rating for travel unit.

Key View Point 3 – Visually Sensitive Character Type in Rubicon Bay, Alternative 2

Exhibit 9-19 shows the existing view and a simulation of buildout of Alternative 2 as seen from KVP 3. The existing elements and their locations are described above under Alternative 1. The simulation shows the replacement of four existing small individual private piers with two larger multiple-use piers containing boat lifts. The two new multiple-use piers are longer than the multiple-use piers in Alternative 1, and a new single-use pier has been added approximately 40 feet from the new multiple-use pier near the center of the view. This reflects the minimum distance between piers required by the Alternative 2 design standards. As with Alternative 1, two new boats on buoys have been added near the left side of the view. However, these buoys are shown closer to shore as would be required by Alternative 2. Alternative 2 would allow floating swim platforms that do not exceed 100 square feet, and a new floating swim platform of approximately 100 square feet is shown on the right side of the view.

Because KVP 3 shows a travel unit that is not in attainment, the increases in visible mass from the new and redeveloped piers would be required to be offset at a 1.5:1 ratio. To depict this visible mass offset, the small building on the beach in the center right of the existing view is removed, and additional vegetative screening is shown in front of existing residences. The simulation includes less vegetative screening than the simulation of Alternative 1, which would require visible mass offsets at a 3:1 ratio. Alternative 2 would not require minimum contrast ratings and no additional scenic improvements would be required in the shoreland.

The simulation shows the removal of three individual private piers, the expansion of one pier, and the construction of two larger multiple-use piers serving a combined eight littoral parcels, some of which would be outside of the view. The additional length and visible mass of the new and expanded piers makes those piers more visually prominent than the existing piers. These larger piers, as well as the new buoys, reduce the intactness of this view. In the simulation, the buildings in the shoreland are very similar to the buildings in the existing view, but slightly less visible due to visible mass offsets that would be required by Alternative 2. These visible mass offsets do not compensate for the visual effects of the piers, boat lifts, and buoys in this view. Overall, the intactness of the view is reduced, which could contribute to a reduction in the scenic quality ratings for this travel unit.

Key View Point 4 – Visually Modified Character Type Near Cave Rock, Alternative 2

Exhibit 9-20 shows the existing view and a simulation of buildout of Alternative 2 as seen from KVP 4. The existing elements and their locations are described above under Alternative 1. In the simulation, a new individual private pier and a new multiple-use pier are added and all three of the existing piers are shown being expanded to the maximum allowable length. Two new boat lifts and an additional boat on a buoy are also shown in the simulation.

Because KVP 4 shows a travel unit that is not in attainment, the increases in visible mass from the new and redeveloped piers would be required to be offset at a 1.5:1 ratio. Additional vegetative screening has been added and a small structure near the base of the pier on the left side of the view has been removed to reflect the visible mass offsets required by Alternative 2. The simulation includes less vegetative screening than the simulation of Alternative 1, which would require visible mass offsets at a 2:1 ratio. As described above, Alternative 2 would not require minimum contrast ratings and no additional scenic improvements would be required in the shoreland.

Existing View



Simulation



Source: Existing photo taken by TRPA in 2016; Simulation prepared by Square One Productions in 2018

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**Exhibit 9-19 Key View 3 – Visually Sensitive
Character Type in Rubicon Bay, Alternative 2**



Existing View



Simulation



Source: Existing photo taken by TRPA in 2016; Simulation prepared by Square One Productions in 2018

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**Exhibit 9-20 Key View 4 – Visually Modified Character
Type Near Cave Rock, Alternative 2**



The simulation shows the expansion of three piers, and the construction of two new piers including a multiple-use pier serving two littoral parcels (one of which is outside of the view). The contrasting color, additional length, and visible mass of the new and expanded piers makes those piers more visually prominent than of the existing piers, even with the removal of existing rock crib piers. In the simulation, the buildings in the shoreland are very similar to the buildings in the existing view, but slightly less visible due to visible mass offsets that would be required by Alternative 2. These visible mass offsets do not compensate for the visual effects of the piers, boat lifts, and buoys in this view. Overall, the intactness of the view is reduced, which could contribute to a reduction in the scenic quality ratings for this travel unit.

Conclusion

Alternative 2 would authorize new shorezone structures that could affect views from Lake Tahoe toward the shore. New and redeveloped structures would be required to comply with applicable design standards addressing location, length, and width. All piers, boat lifts, boat ramps, marinas, or other similar structures would be required to offset increases in visible mass at ratios that would result in a net reduction in the amount of visible mass, although with less of a decrease in visible mass than under Alternative 1. In addition, new or expanded marinas or boat ramps would be evaluated under the visual magnitude system in TRPA Code Section 66.3.

New piers and buoys would not be required to implement scenic improvements through the visual magnitude system. The over 400,000 square feet of visible mass associated with buoys would not be subject to visible mass offset requirements. Even after considering the reduction in visible mass associated with other structures, this would result in an estimated net increase in visible mass of over 338,000 square feet.

The effects of buildout of Alternative 2 would vary based on the location, intensity, and other characteristics of future projects. In some situations, scenic quality could be unchanged and in other situations the unity and/or intactness of views could be degraded, which would reduce the scenic threshold ratings. Under Alternative 2, scenic threshold ratings could decline be due to additional visible mass associated with new buoys, and piers colors that contrast with the background when viewed from the lake. The additional visual prominence of piers in the shorezone would not be compensated for with reductions in the visual magnitude of shoreland development. This would be a **significant** impact.

Alternative 3: Limit New Development

Alternative 3 would focus new shorezone structures at public facilities to maximize the number of people served by each new structure. Alternative 3 would authorize up to 365 new public buoys or slips, five new public piers, 86 new private multiple-use piers, and one new boat ramp. These new structures, and the redevelopment of existing structures would be subject to design and location standards, and scenic requirements described in Chapter 2, "Description of the Proposed Project and Alternatives."

Piers

Alternative 3 would limit new private piers to multiple-use piers serving two or more littoral parcels. It would not distribute new piers to individual jurisdictions to prevent dense clusters of new piers along any portion of the shoreline or limit the number of new piers within visually sensitive character types. However, Alternative 3 would limit the density of piers to an average of no more than one pier per 100 linear feet of shoreline in visually modified and visually dominated character types, and an average of no more than one pier per 300 feet in visually sensitive character types. This would have a similar effect as the pier distribution provisions in Alternative 1. As with Alternative 1, new piers would not be allowed within Stream Mouth Protection Areas or Shoreline Preservation Areas. Each new or redeveloped pier would be required to comply with design standards that address the pier length, width, setbacks, location, and visible mass (see Table 2-8 in Chapter 2, "Description of the Proposed Project and Alternatives").

Moorings

Alternative 3 would prohibit new private moorings (buoys, boat lifts, and slips). Up to 365 new public slips or buoy could be added at marinas or other public facilities.

Public Facilities and Marinas

Alternative 3 would allow for five new public piers, one new public boat ramp, and would allow existing marinas to expand and add up to 365 new buoys or slips. The new public piers could deviate from the design standards described above to the extent necessary to serve their public purpose. Public piers that deviate from standards would be evaluated on a case-by-case basis, and mitigation would be required where necessary to avoid significant effects on scenic quality. Any new or expanded public piers would be required to comply with the same visible mass offsets as Alternative 1.

The new boat ramp would be required to comply with the same visible mass offsets as piers and result in a net decrease in the amount of mass of human-made structures visible from the lake. The location and characteristics of the possible new public boat ramp cannot be known at this time. If, and when a new public boat ramp is proposed, it would be required to undergo an environmental review and scenic assessment including an evaluation of the visual magnitude of the project area as required by TRPA Code Section 66.3. As documented in the 2015 Threshold Evaluation Report, the visual magnitude requirements of the TRPA Code have resulted in improved scenic conditions along the shoreline (TRPA 2016). Compliance with these requirements would prevent scenic degradation from public boat ramps and marinas.

Visible Mass

Alternative 3 would require the same visible mass offsets as Alternative 1. Table 9-4 provides the estimated change in visible mass that would result from buildout of Alternative 3. While the actual visible mass would vary depending on the size and design of proposed shoreline structures, Table 9-4 provides an approximate estimate based on conservative assumptions.

Table 9-4 Change in Visible Mass under Alternative 3

| Structure | Typical Visible Mass per Structure (sq. ft.) | Number of Structures | Additional Visible Mass (sq. ft.) | Estimated Required Screening (sq. ft.) ⁶ | Net Change in Visible Mass (sq. ft.) |
|---|--|----------------------|-----------------------------------|---|--------------------------------------|
| Private Multiple-Use Piers ¹ | 520 | 86 | 44,720 | 96,200 | -51,480 |
| Public Piers ² | 1,400 | 5 | 7,000 | 15,400 | -8,400 |
| Boat Lifts ³ | 83 | 30 | 2,490 | 5,395 | -2,905 |
| Boat Ramps ⁴ | 323 | 1 | 323 | 646 | -323 |
| Buoys ⁵ | 83 | 300 | 24,900 | 0 | 24,900 |
| Total | | | 79,433 | 117,641 | -38,208 |

Notes:

¹ Visible mass of private piers reflects maximum allowable for single-use piers and multiple use piers serving four or more littoral parcel owners

² Visible mass of public piers based on visible mass calculations for proposed Kings Beach pier rebuild EIR/EIS (TRPA and State Parks 2018)

³ Visible mass of boat lifts based on (TRPA 2017b)

⁴ Visible mass of new boat ramp based on visible mass drawings of Kings Beach SRA boat ramp and accessory structures (TRPA and State Parks 2018)

⁵ Visible mass of boats on buoys based on estimates of the average visible mass of boats prepared by TRPA to inform the Shoreline Steering Committee and to support scenic assessment trainings (TRPA 2017b, 2017c), and assumes all buoys would have boats⁶ Required screening assumes 13 private multi-use piers, 1 public pier, and 5 boat lifts would be placed in visually sensitive character types (1:3 offset), remainder in visually modified (1:2 offset), based on proposed limits on structures within visually sensitive areas

As shown in Table 9-4, new piers, boat lifts, and boat ramps would add visible mass. However, the visible mass offset requirements would require the removal or screening of other existing visible mass at ratios that result in a net decrease in visible mass. New buoys would also contribute visible mass and, as described above, this additional visible mass would not be required to be offset. Under a worst-case-scenario (i.e., assuming every buoy had a boat moored to it), the estimated 300 new buoys would contribute an estimated 24,900 square feet of additional visible mass. After the net decrease in visible mass required for other structures is considered, Alternative 3 would result in an estimated net decrease of approximately 38,000 square feet of visible mass.

Visual Magnitude of the Shoreland

As with Alternative 1, Alternative 3 would require that parcels with new or expanded piers achieve minimum contrast ratings. Alternative 3 would require a minimum contrast rating of 25, which is the same contrast rating required under Alternative 1. However, Alternative 3 would require that the minimum contrast rating be achieved prior to submission of an application for a new or expanded pier. This requirement could result in more rapid scenic improvements than Alternative 1, but it could also serve as a disincentive for scenic improvements because parcels that do not meet the contrast rating may not make improvements without certainty that their pier application would be approved.

Key View Point 1 – Visually Modified Character Type in Crystal Bay, Alternative 3

Exhibit 9-21 shows the existing view and a simulation of buildout of Alternative 3 as seen from KVP 1. The existing elements and their locations are described above under Alternative 1. The simulation shows the expansion of three existing piers consistent with the design standards for Alternative 2, including an individual private pier replaced with a multiple-use pier. This is less development than shown for Alternative 1 in KVP 1 because Alternative 3 would authorize fewer piers and no new private buoys. The design standards for Alternative 3 would result in new individual private piers that appear similar to piers developed under Alternative 1, except that piers would be narrower overall but with a wider pierhead and railings would be present on multiple-use piers.

Because KVP 1 is within a visually modified character type, any increase in visible mass would be required to be offset at a 2:1 ratio. The simulation shows additional vegetative screening in front of the residences that are associated with new piers or expanded piers, similar to the simulation of Alternative 1. These parcels would also be required to achieve minimum contrast ratings for a pier redevelopment project, and the simulation shows the existing buildings in a darker color, which could be necessary to achieve the required minimum contrast ratings.

Overall, buildings and other development in the shoreland are less prominent than in the existing view, due to visible mass offsets and minimum contrast ratings required for new and expanded piers. The simulation shows the expansion of an existing individual private pier into a multiple-use pier serving two littoral parcels. With this change, the overall visual prominence of piers is decreased due to compliance with the design standards proposed in Alternative 3. Taken together, the changes shown in the simulation of KVP 1 would improve the intactness and unity of the view, which could contribute to an improvement in the scenic quality rating for this travel unit.

Key View Point 2 – Visually Modified Character Type Near Lake Forest, Alternative 3

Exhibit 9-22 shows the existing view and a simulation of buildout of Alternative 2 as seen from KVP 2. The existing elements and their locations are described above under Alternative 1.

One new multiple-use pier has been added near the center right of the view. In addition, two of the existing large piers on the left side of the view are shown as being expanded into multiple-use piers with two boat lifts each, and two of the existing shorter piers on the right side of the view are shown as expanded individual private piers. The multiple-use piers are slightly shorter than the multiple-use piers shown for Alternative 2, consistent with the length standards proposed in Alternative 3. No new buoys are shown because Alternative 3 would not authorize new private moorings.

Because KVP 2 is within a visually modified character type, any increase in visible mass would be required to be offset at a 2:1 ratio. The simulation shows additional vegetative screening in front of the residences that are associated with new or expanded piers. The amount of screening is similar to the amount shown in the simulation of KVP 2 for Alternative 1. To reflect the contrast ratings for shoreland development required for new pier or pier redevelopment projects, several structures are shown in a darker color.

Existing View



Simulation



Source: Existing photo taken by TRPA in 2016; Simulation prepared by Square One Productions in 2018

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**Exhibit 9-21 Key View 1 – Visually Modified Character
Type in Crystal Bay, Alternative 3**



Existing View



Simulation



Source: Existing photo taken by TRPA in 2016; Simulation prepared by Square One Productions in 2018

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**Exhibit 9-22 Key View 2 – Visually Modified Character
Type Near Lake Forest, Alternative 3**



Overall, buildings and other development in the shoreland are less visible than in the existing view, which improves the intactness of the view due to visible mass offsets and contrast ratings that would be required. The simulation shows one additional multiple-use pier, which would serve two littoral parcels. With the new and expanded piers, the overall visual prominence of structures on the lake is greater than in the existing view, which reduces the intactness of the view. When viewed together, the increase in intactness in the shoreland offsets the decrease in intactness from the additional visible mass of piers. The scenic quality of the view is not substantially changed and would not reduce the scenic quality rating for this travel unit.

Key View Point 3 – Visually Sensitive Character Type in Rubicon Bay, Alternative 3

Exhibit 9-23 shows the existing view and a simulation of buildout of Alternative 3 as seen from KVP 3. The existing elements and their locations are described above under Alternative 1. The simulation shows the replacement of five existing small individual private piers with two larger multiple-use piers. The two new multiple-use piers are similar to the multiple-use piers in Alternative 1, but they do not include new boat lifts and one includes railings as could be allowed under Alternative 3. The piers are placed approximately 300 feet apart, which is the minimum average distance between piers required within visually sensitive character types under Alternative 3. No new buoys have been added, but an approximately 100 square foot swim platform has been added to the right side of the view.

Because KVP shows a visually sensitive character type, the increases in visible mass from the redeveloped piers would be required to be offset at a 3:1 ratio. To depict this visible mass offset, the small building on the beach in the center right of the existing view is removed, and additional vegetative screening is shown in front of existing residences. To reflect the minimum contrast ratings required under Alternative 3, the light-colored existing buildings are shown in a darker color.

The simulation shows the removal of four individual private piers and the construction of two larger multiple-use piers serving a combined seven littoral parcels, some of which would be outside of the view. The additional length and visible mass of the new piers makes those piers more visually prominent than the existing piers. These larger piers slightly reduce the intactness of this view. This is partially offset by the decreased visual clutter that results from consolidating multiple smaller structures into fewer larger structures. In the simulation, the buildings in the shoreland are less visible than the buildings in the existing view, due to visible mass offsets and contrast ratings that would be required by Alternative 3. Overall, the intactness of the view is similar to the existing view, and the changes would not reduce the scenic quality ratings for this shoreline travel unit.

Key View Point 4 – Visually Modified Character Type Near Cave Rock, Alternative 3

Exhibit 9-24 shows the existing view and a simulation of buildout of Alternative 3 as seen from KVP 4. The existing elements and their locations are described above under Alternative 1. In the simulation, a new multiple-use pier is added and all three of the existing piers are expanded to the maximum allowable length. No new boat lifts or buoys are shown in the simulation.

Because KVP 4 shows a visually modified character type, the increases in visible mass from the new and redeveloped piers would be required to be offset at a 2:1 ratio. Additional vegetative screening has been added and a small structure near the base of the pier on the left side of the view has been removed to reflect the visible mass offsets required by Alternative 3. To reflect the minimum contrast ratings required under Alternative 3, the light-colored existing buildings are shown in a darker color.

The simulation shows the expansion of three piers and construction of a new multiple-use pier serving two littoral parcels (one of which is outside of the view). The contrasting color, additional length, and visible mass of the new and expanded piers makes those piers more visually prominent than of the existing piers, even with the removal of existing rock crib piers. In the simulation, the buildings in the shoreland are slightly less visible due to visible mass offsets that would be required by Alternative 2. These visible mass offsets do not compensate for the visual effects of the piers, boat lifts, and buoys in this view. Overall, the intactness of the view is reduced, which could contribute to a reduction in the scenic quality ratings for this travel unit.

Existing View



Simulation



Source: Existing photo taken by TRPA in 2016; Simulation prepared by Square One Productions in 2018

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**Exhibit 9-23 Key View 3 – Visually Sensitive Character
Type in Rubicon Bay, Alternative 3**



Existing View



Simulation



Source: Existing photo taken by TRPA in 2016; Simulation prepared by Square One Productions in 2018

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**Exhibit 9-24 Key View 4 – Visually Modified Character
Type Near Cave Rock, Alternative 3**



Conclusion

As described above, Alternative 3 would authorize new shorezone structures that could affect views from Lake Tahoe toward the shore. New and redeveloped structures would be required to comply with applicable design standards addressing the location, length, width, orientation, and maximum visible mass. The visible mass of piers would be restricted, and all piers, boat lifts, boat ramps, marinas, or other similar structures would be required to offset increases in visible mass at ratios that would result in a net reduction in the amount of visible mass that can be seen from Lake Tahoe. In addition, these structures would be evaluated under the visual magnitude system in TRPA Code Section 66.3. New or expanded structures would require scenic improvements in the shoreland to achieve minimum required contrast ratings.

New buoys would be restricted to marinas or other public facilities. The visible mass associated with buoys would not be offset, and projects adding buoys would not be required to implement scenic improvements through the visual magnitude system.

The effects of buildout of Alternative 3 would vary based on the location, intensity, and other characteristics of future projects. In some situations, the intactness of views would be improved, and the scenic threshold ratings would increase due to required scenic improvements in the shoreland, visible mass reductions, and redevelopment of existing shorezone structures consistent with proposed design standards. In other situations, scenic quality could be unchanged, or the unity and/or intactness of views could be degraded, which would reduce the scenic threshold ratings. This potential reduction in scenic threshold ratings would be due to additional visible mass associated with new buoys, and/or new or redeveloped piers that are a color that contrasts with the background view. Because new visible mass of buoys and contrasting piers could degrade scenic threshold ratings, this would be a **significant** impact.

Alternative 4: Expand Public Access and Reduce Existing Development

Alternative 4 would prohibit new private shoreline structures, except where they result in a net reduction in the number of structures. It would allow for up to 15 new public piers and no other new shorezone structures.

Piers

New public piers would be subject to the same requirements as under Alternative 1, which allows public piers to deviate from design standards to the extent necessary to provide a public service. No new private piers would be allowed. Modifications of existing piers would only be allowed if the modification reduced the visible mass of the pier. No expansions of existing piers would be allowed.

Public Facilities and Marinas

Alternative 5 would allow no additional public facilities beyond the 15 new public piers. Marinas would not be allowed to expand, and a new public boat ramp could only be constructed if two existing boat ramps were removed. Public piers that deviate from standards would be evaluated on a case-by-case basis, and mitigation would be required where necessary to avoid significant effects on scenic quality. Any new or expanded public piers would be required to comply with the same visible mass offsets as Alternative 1. If existing marinas or public boat ramps were reconfigured, they would undergo an environment review and scenic assessment including an evaluation of the visual magnitude of the project area as required by TRPA Code Section 66.3. As documented in the 2015 Threshold Evaluation Report, the visual magnitude requirements of the TRPA Code have resulted in improved scenic conditions along the shoreline (TRPA 2016). Compliance with these requirements would prevent scenic degradation from public boat ramps and marinas.

Visible Mass

Alternative 4 would require the same visible mass offsets as Alternative 1. Table 9-5 provides the estimated change in visible mass that would result from buildout of Alternative 5. While the actual visible mass would vary depending on the size and design of proposed shoreline structures, Table 9-5 provides an approximate estimate based on conservative assumptions.

Table 9-5 Change in Visible Mass under Alternative 4

| Structure | Typical Visible Mass per Structure (sq. ft.) | Number of Structures | Additional Visible Mass (sq. ft.) | Estimated Required Screening (sq. ft.) ² | Net Change in Visible Mass (sq. ft.) |
|---------------------------|--|----------------------|-----------------------------------|---|--------------------------------------|
| Public Piers ¹ | 1,400 | 15 | 21,000 | 45,500 | -24,500 |

Notes:

¹ Visible mass of public piers based on visible mass calculations for proposed Kings Beach pier rebuild EIR/EIS (TRPA and State Parks 2018)

² Required screening assumes 5 public piers would be placed in visually sensitive character types (3:1 offset), 5 would be placed in visually modified (2:1 offset), and 5 would be placed in visually dominated (1.5:1 offset).

Conclusion

Alternative 4 would authorize up to 15 new public piers and no other new shorezone structures. The public piers would comply with visible mass offsets that result in a net reduction in the visible mass that can be seen from Lake Tahoe. In addition, each proposed public pier would be evaluated through a project-level scenic assessment that would evaluate the project's effect on potentially affected scenic travel units and resources. No other new or expanded shoreline structures would be allowed, and pier reconfigurations would only be allowed if they reduce the visible mass of the existing pier. For these reasons, Alternative 4 would have very little effect on the scenic quality of views from Lake Tahoe toward the shore, and it is not necessary to evaluate Alternative 4 with visual simulations. Due to the project-level assessment and mitigation of scenic effects of public piers, and the prohibition on other new or expanded shoreline structures, Alternative 4 would have a **less-than-significant** effect on scenic quality of views from Lake Tahoe.

Mitigation 9-1a: Offset the visible mass of buoys

This mitigation measure applies to Alternatives 1, 2, and 3

TRPA will require that all new buoys offset the visible mass associated with the buoy and boat. The average visible mass of a buoy and boat is estimated at 83 square feet. Each new buoy will require removal or screening of a minimum of 83 square feet of existing mass visible from Lake Tahoe. The visible mass of a buoy can be offset through the direct reduction of visible mass or through the payment of an in-lieu fee used to reduce visible mass, as described below.

If a buoy applicant chooses to directly remove or screen visible mass as part of the buoy project, then the applicant would comply with the same visible mass offset requirements that apply to piers and other structures. The 83 square feet of visible mass associated with the buoy would be offset at the same ratios required for other shoreline structures. The offset would be required as close to the proposed buoy as possible, in the following order of priority: 1) on the same parcel in the shorezone, 2) on the same parcel in the upland area, 3) elsewhere in the shorezone within the same shoreline scenic travel unit, 4) within the same travel unit in the upland, and 5) in another nonattainment scenic travel unit.

TRPA will also provide the option to pay an in-lieu fee to offset the additional visible mass of the buoy. TRPA will set a fee amount that is adequate to remove or visually screen 83 square feet of existing visible mass. TRPA will use the fee to acquire and remove or screen existing visible mass visible from shoreline scenic travel units that are not in attainment of threshold standards. The funds will be dedicated to projects that TRPA determines will have the greatest benefit to scenic threshold standards and will be prioritized for use in the following order: 1) in the shorezone, 2) in the shoreland, and 3) to improve background views visible from Lake Tahoe. Funds could be used to implement projects directly or through grants, contracts, or other agreements with partner organizations. TRPA could also authorize mitigation funds for projects that permanently reduce the visual magnitude of shoreland development when the project contributes to the attainment of scenic thresholds and is not otherwise required. Visible mass mitigation projects that could be funded by the in-lieu fee include, but are not limited to:

- ▲ scenic improvement projects identified in the 2018 update to the SQIP;
- ▲ lakefront recreation projects with scenic improvements such as replacing dilapidated structures or relocating structures (public gathering areas and waterfront public access scenic improvements);

- ▲ scenic improvement of existing rip rap and retaining walls along visible roadway cuts (e.g., recoloring of light-colored rip rap);
- ▲ permanent removal of existing shorezone and shoreland structures;
- ▲ permanent screening of roadside parking areas, roadways, and infrastructure through the planting of native vegetation and creation of vegetated berms;
- ▲ undergrounding of utility lines that are visible from the lake; and
- ▲ improving existing shoreland structures and deed restricting those parcels such that visual magnitude of existing development is permanently reduced.

Mitigation 9-1b: Establish color standards for piers

This mitigation measure applies to Alternatives 1, 2, and 3

TRPA will modify the proposed design standards to regulate the color of piers. These standards will be enforced for all new or expanded piers. The standards will require that piers be a matte medium to dark gray. The standards will also allow TRPA to require alternate colors that TRPA determines would better blend into the background view of the project site.

Mitigation 9-1c: Require visual magnitude reductions in the shoreland

This mitigation measure applies to Alternative 2

TRPA will revise the TRPA Code under Alternative 2 to incorporate the same visual magnitude requirements for new or expanded shoreline structures as included in Alternative 1. These Code revisions will require that shoreland properties achieve minimum contrast ratings as part of the approval process for new piers. For new private piers, TRPA would require an initial contrast rating of 21 as part of the pier application. Following permit application submittal, applicants would have 6 months to increase their contrast rating to 25 to offset the visual impact of new or redeveloped piers. TRPA would exempt property owners from the contrast rating of 25, if it is not feasible.

Significance after Mitigation

Mitigation Measure 9-1a would require the removal or visual screening of existing visible mass to offset the additional visible mass that could result from new buoys. These offsets would occur near the project site or in scenic travel units that are not in attainment. With implementation of this mitigation measure, all alternatives would result in a net reduction the mass of human-made structures visible from Lake Tahoe. Mitigation Measure 9-1b would require that piers be a color that does not contrast with the background view of the project site. This requirement, in combination with the other design standards, visible mass offsets, scenic improvements required to attain required contrast ratings, and project-level scenic analysis requirements would substantially reduce the potential for new piers to degrade scenic threshold ratings. Mitigation measure 9-1c would require that Alternative 2 include the same minimum contrast ratings for new or expanded piers as required under Alternative 1. As shown above, implementation of these minimum contrast ratings requirements would reduce the visual magnitude of development in the shoreland and compensate for new visible structures in the shorezone. After implementation of the required mitigation measures, all alternatives would reduce visible mass and prevent new structures from degrading scenic travel unit ratings. Therefore, the impact would be **less than significant** after mitigation.

Impact 9-2: Alter views of Lake Tahoe from the shore

The scenic effects on views from the shore would vary based on the location, intensity, and other characteristics of future projects. In some scenarios under Alternatives 1 and 3, the scenic threshold ratings would increase due to required scenic improvements in the shoreland, visible mass reductions, and redevelopment of existing shorezone structures consistent with design standards. In other scenarios under Alternatives 1, 2, and 3, scenic quality would not substantially change, or the scenic threshold ratings could be reduced. This potential reduction in scenic threshold ratings would be due to additional visible mass associated with new buoys, and in the case of Alternative 2, because no reductions in the visual magnitude of the shoreland would be required to compensate for additional development in the shorezone. This would be a **significant** impact for Alternatives 1, 2, and 3.

Due to the limited number of new shorezone structures that could be developed under Alternative 4, the project-level scenic assessment and mitigation requirements for public piers, and the prohibition of other new or expanded shoreline structures, Alternative 4 would have a **less-than-significant** impact on views from the shore.

The mitigation measures would require offsets for new visible mass associated with buoys, would regulate the color of piers to prohibit contrasting piers, and in the case of Alternative 2, would require that minimum contrast ratings be achieved for parcels with new or expanded piers. These mitigation measures would reduce the impact to a **less-than-significant** level for Alternatives 1, 2, and 3.

Views of Lake Tahoe are an important element that affects the scenic quality of roadways, recreation areas, and other public gathering spots. Views of Lake Tahoe are one of the six criteria considered in determining scenic quality ratings for road travel units. Similarly, views of Lake Tahoe are considered in determining the scenic quality ratings for roadway scenic resources, public recreation areas, and bicycle trails. Shoreline structures that are visible from the shore can detract from the unity or intactness of views and degrade scenic quality ratings.

As described under Impact 9-1, above, the visual effects of the alternatives would not occur uniformly or consistently around the shoreline. The alternatives would have the greatest potential to degrade scenic views of Lake Tahoe in areas where scenic vistas of Lake Tahoe are visible from roads or other public areas, and where those vistas could include a substantial number of new shoreline structures. Three KVPs were selected that include TRPA-designated scenic resources within roadway travel units with existing vistas of Lake Tahoe in areas where new shoreline structures could be added. Exhibit 9-25 shows the location of these three KVPs, along with the threshold attainment status of roadway travel units.

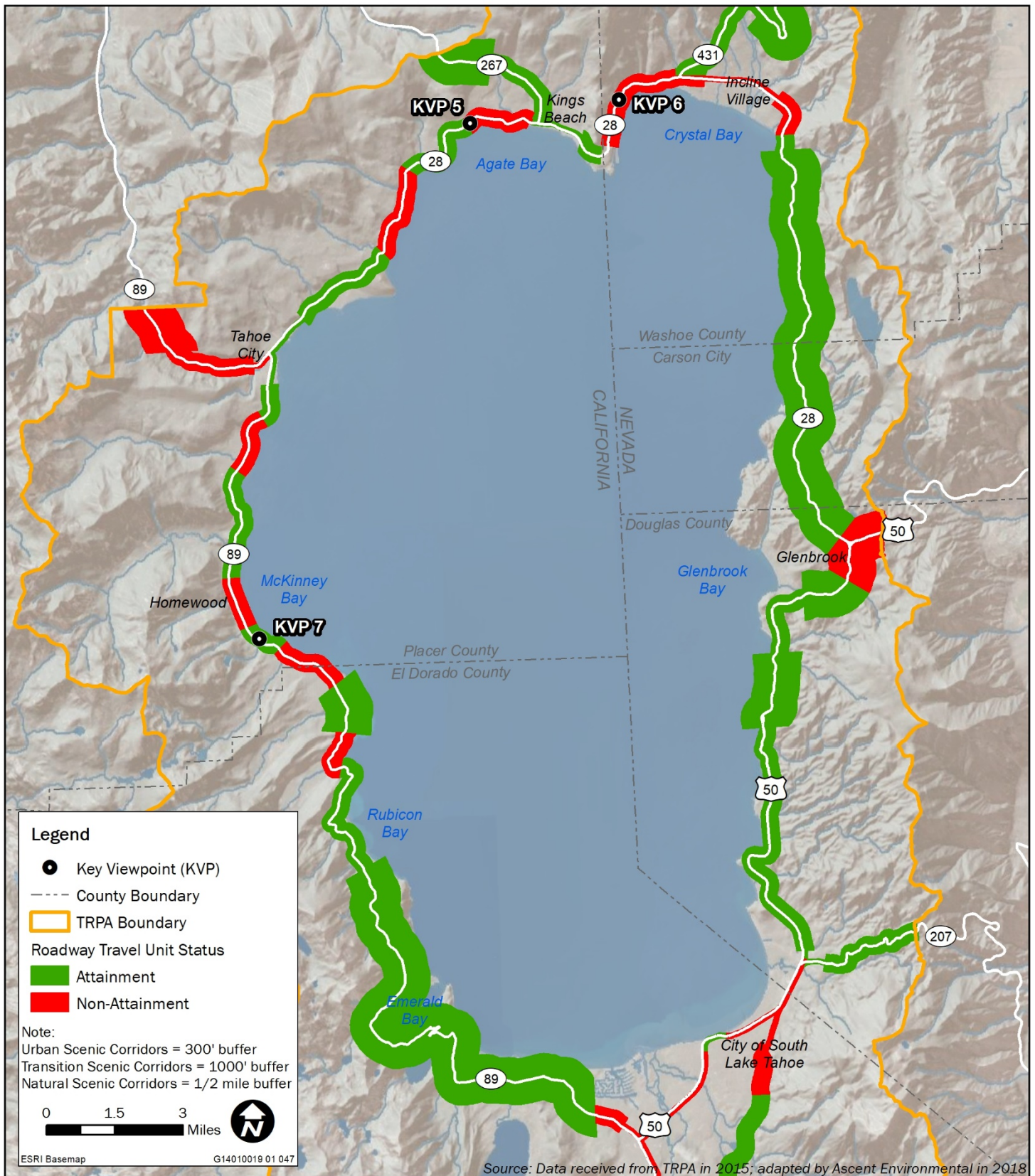
Alternative 1: Shoreline Plan

Alternative 1 would allow for up to 138 new piers (10 public and 128 private), two public boat ramps, and 2,116 new moorings, which would include a combination of buoys, boat lifts, and slips. These new structures, and the redevelopment of existing structures would be subject to design and location standards, and scenic requirements described in Chapter 2, "Description of the Proposed Project and Alternatives."

The visual effects of buildout of Alternative 1 is shown in simulations of KVPs 5–7. Each of these simulations shows a buildout scenario for Alternative 1 as viewed from a Scenic Resource on the shore. New structures are shown consistent with the design standards proposed in Alternative 1, and visible changes to achieve required contrast ratings and visible mass offsets are simulated where those changes would be visible.

Key Viewpoint 5 - Near SR 28 Facing East Across Agate Bay, Alternative 1

Exhibit 9-26 shows the existing view and a simulation of buildout of Alternative 1 as seen from KVP5. KVP 5 shows the view from TRPA-designated Scenic Resource 20-9, located within the Tahoe Vista Roadway Travel Unit, which is not in attainment of scenic threshold standards. The viewpoint is located along SR 28 near the intersection with Stag Drive. The view is facing east with expansive views across Agate Bay. The KVP shows a



Existing View



Simulation



Source: Existing photo taken by TRPA in 2016; Simulation prepared by Square One Productions in 2018

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**Exhibit 9-26 Key View 5 – Near SR 28 Facing East
Across Agate Bay, Alternative 1**



visually sensitive shoreline character type on the left side of the view associated with the sandy beaches in front of Tahoe Vista. The shoreline transitions into a visually modified character type in the distance. A point that includes North Tahoe Marina is visible in the background near the center of the view, and Stateline Point is visible in the far background of the view.

Existing View

In the existing view, over 20 boats on buoys are visible in the foreground and middleground. These include a mix of buoys associated with private littoral parcels and buoys within small buoy fields. On the left side of the existing view, four piers are visible ranging from 180 to 290 feet in length. Several large buildings are visible in the shoreland above the sandy beach. In the background of the right side of the view a breakwater and large buoy field associated with the North Tahoe Marina are barely visible.

Simulation

In the simulation, three additional piers and 10 boats on buoys have been added to the foreground and middleground of the view. Because the view contains a visually sensitive character type, only multiple-use piers would be allowed, and any increase in visible mass from a new or expanded pier would be offset at a 3:1 ratio. In addition, any project area adding or expanding a pier would be required to achieve a minimum contrast rating of 25. The three additional multiple-use piers and ten additional buoys represents a realistic build-out scenario for this view based on the number of parcels potentially eligible for piers and the requirement that multiple-use piers serve more than one littoral parcel.

One new pier of approximately 180 feet in length is visible in front of the existing piers. The other two piers are farther away along the sandy beach but are barely visible due to the distance and intervening existing piers. The existing buildings in the shoreland are shown in a darker color with additional vegetative screening as would be necessary to meet the contrast rating and visible mass offset requirements for the new piers. Seven new boats on buoys are visible in the foreground center left of the view. These boats are arranged in a grid pattern consistent with the design standards for a buoy field. Three additional new boats are visible in the center of the view and are not in a grid pattern to represent new buoys associated with individual littoral parcels.

The scenic quality of the sandy beach is slightly improved. One of the new piers is clearly visible but does not substantially reduce the intactness of the view of the beach because it is consistent with the existing partially-developed character of the shoreline in this area and is more than offset by the required scenic improvements in the shoreland. The additional boats on buoys are visually similar to the existing boats in the view. However, the additional visible mass associated with these boats detracts from views of the surface of the lake and reduces the intactness of this view. This could reduce the scenic quality rating for this scenic resource and/or for the roadway travel unit.

Key Viewpoint 6 - Along SR 28 Facing East Across Carnelian Bay, Alternative 1

Exhibit 9-27 shows the existing view and a simulation of buildout of Alternative 1 as seen from KVP6. KVP 6 shows the view from TRPA-designated Scenic Resource 21-1, located within the North Stateline Roadway Travel Unit, which is not in attainment of scenic threshold standards. The viewpoint is located along SR 28 north of the intersection with Gonowabie Road. The view is facing east with expansive views across Carnelian Bay. The KVP shows a visually sensitive shoreline character type.

Existing View

In the existing view, two separate buoy fields and several buoys outside of buoy fields are visible in the left half of the view. On the far-left side of the existing view, boulder breakwaters associated with two private harbors are visible. One existing pier is visible near a small point in the center left of the view, and another pier is barely visible along the sandy beach in the center right of the view. Several large buildings are visible on the left side of the view and several smaller residences are visible in the shoreland in the center and right side of the view. Some of the buildings are very prominent due to their contrasting colors.

Existing View



Simulation



Source: Existing photo taken by TRPA in 2016; Simulation prepared by Square One Productions in 2018

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**Exhibit 9-27 Key View 6 – Along SR 28 Facing East
Across Carnelian Bay, Alternative 1**



Simulation

In the simulation, four additional multiple-use piers and 15 boats on buoys have been added to the view. One new pier of approximately 145 feet in length is visible in front of the existing pier on the left side of the view. The other three new piers are visible along the sandy beach near the center of the view. The existing buildings in the shoreland are shown in a darker color with additional vegetative screening as would be necessary to meet the contrast rating and visible mass offset requirements for the new piers. The 15 new buoys are visible near the center of the view. These buoys are shown approximately 600 feet from shore as would be allowed under Alternative 1.

The new piers are visible but are more than offset by the required scenic improvements in the shoreland. The additional visible mass associated with the new buoys detracts from views of the surface of the lake and reduces the intactness of this view. However, the reduced visible mass and visual magnitude of the buildings in the shoreland substantially improves the unity and intactness of the view. Overall, the unity and intactness of the view is improved, which could increase the scenic quality rating for this scenic resource and/or for the roadway travel unit.

Key Viewpoint 7 - Along SR 89 Facing South Across McKinney Bay, Alternative 1

Exhibit 9-28 shows the existing view and a simulation of buildout of Alternative 1 as seen from KVP7. KVP 7 shows the view from TRPA-designated Scenic Resource 10,11-2, located within the Homewood Roadway Travel Unit, which is in attainment of scenic threshold standards. The viewpoint is located along SR 89 near the intersection with Meadow Road. The view is facing southeast with views across the southern portion of McKinney Bay. The KVP shows a visually modified shoreline character type.

Existing View

In the existing view, numerous boats are visible on the left side of the view, including boats within and outside of buoy fields. Five piers ranging from approximately 100 to 150 feet in length are visible along the shoreline, including two piers with enclosed boat houses.

Simulation

In the simulation, four additional individual private piers and seven boats on buoys have been added to the view. The new piers are visible between the existing piers and the new boats are visible in the middleground of the left side of the view. No existing buildings in the shoreland are visible in the view, and the required visible mass offsets and visual magnitude reductions that would be required for the new piers are not shown.

The new piers are visible but do not substantially reduce the intactness of the view because they are consistent with the developed character of the view and they comply with design standards that limit their visible mass and restrict the pier length to the existing pierhead line. The additional boats on buoys are visually similar to the existing boats in the view. However, the additional visible mass associated with these boats detracts from views of the surface of the lake and reduces the intactness of this view. This could reduce the scenic quality rating for this scenic resource and/or for the roadway travel unit.

Conclusion

As described above, Alternative 1 would authorize new shorezone structures that could affect views from the shore toward Lake Tahoe. New and redeveloped structures would be required to comply with applicable design standards addressing the location, length, width, orientation, and maximum visible mass. The visible mass of piers would be restricted, and all piers, boat lifts, boat ramps, marinas, or other similar structures would be required to offset increases in visible mass at ratios that would result in a net reduction in visible mass. In addition, these structures would be evaluated under the visual magnitude system in TRPA Code Section 66.3. New or expanded structures would require scenic improvements in the shoreland to achieve minimum required contrast ratings.

New buoys would be allowed to be placed farther from the shore than under existing conditions. The visible mass associated with buoys would not be offset, and projects adding buoys would not be required to implement scenic improvements through the visual magnitude system.

Existing View



Simulation



Source: Existing photo taken by TRPA in 2016; Simulation prepared by Square One Productions in 2018

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**Exhibit 9-28 Key View 7 – Along SR 89 Facing South
Across McKinney Bay, Alternative 1**



The effects of buildout of Alternative 1 would vary based on the location, intensity, and other characteristics of future projects. In some situations, the intactness and/or unity of views from the shore would be improved, and the scenic threshold ratings would increase due to required scenic improvements in the shoreland, visible mass reductions, and redevelopment of existing shorezone structures consistent with proposed design standards. In other situations, scenic quality could be unchanged, or the intactness of views could be degraded, which would reduce the scenic threshold ratings. This potential reduction in scenic threshold ratings would be due to additional visible mass associated with new buoys. Because new visible mass from buoys could degrade scenic threshold ratings, this would be a **significant** impact.

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

Alternative 2 would maintain the existing shorezone ordinances and the number of new structures would be limited by site-specific eligibility criteria, including a prohibition on new structures in prime fish habitat. It is estimated that Alternative 2 could allow for up to 476 new piers, six new public boat ramps, and 6,936 new moorings, which would include a combination of buoys, boat lifts, and slips. These new structures, and the redevelopment of existing structures would be subject to design and location standards, and scenic requirements described in Chapter 2, "Description of the Proposed Project and Alternatives". The visual effects of buildout of Alternative 2 is shown in simulations of KVPs 5–7. Each of these simulations shows a buildout scenario for Alternative 2 as viewed from a TRPA-designated scenic resource on the shore.

Key Viewpoint 5 - Near SR 28 Facing East Across Agate Bay, Alternative 2

Exhibit 9-29 shows the existing view and a simulation of buildout of Alternative 2 as seen from KVP 5. The existing elements and their locations are described above under Alternative 1.

In the simulation, six additional piers and 15 boats on buoys have been added to the view. This reflects five more buoys and three more piers than Alternative 1, which would restrict new piers to multiple-use piers in the visually sensitive character type shown in KVP 5. Two new piers of approximately 180 feet in length are visible in front of the existing piers. The other four new piers are farther away along the sandy beach but are barely visible due to the distance and intervening existing piers. Because Alternative 2 would not require minimum contrast ratings for new or expanded piers, the buildings in the shoreland are in the same color as in the existing view. Some additional vegetative screening is shown near these buildings, as would be necessary to meet the 1.5:1 visible mass offset requirement in this area. Twelve new boats on buoys are visible in the foreground center left of the view. These boats are arranged in a grid pattern consistent with the design standards for a buoy field. Three additional new boats are visible in the center of the view and are not in a grid pattern to represent new buoys associated with individual littoral parcels.

Overall, the scenic quality of the sandy beach is slightly degraded. Two of the new piers are clearly visible and are consistent with the existing partially-developed character of the shoreline in this area. The additional boats on buoys are visually similar to the existing boats in the view. However, the additional visible mass associated with these boats detracts from views of the surface of the lake and reduces the intactness of this view. The additional piers and buoys are not offset by reductions in the visual magnitude of the shoreland. This could reduce the scenic quality rating for this scenic resource and/or for the roadway travel unit.

Key Viewpoint 6 - Along SR 28 Facing East Across Carnelian Bay, Alternative 2

Exhibit 9-30 shows the existing view and a simulation of buildout of Alternative 2 as seen from KVP 6. The existing elements and their locations are described above under Alternative 1.

In the simulation, two additional multiple-use piers, four additional individual private piers, and 15 boats on buoys have been added to the view. Two new piers are visible in front of the existing pier on the left side of the view. The other four new piers are visible along the sandy beach near the center of the view. The existing buildings in the shoreland are shown with additional vegetative screening as would be necessary to meet the visible mass offset requirements for the new piers. Because Alternative 2 would not require minimum contrast ratings for new or expanded piers, the buildings in the shoreland are in the same color as in the existing view. The 15 new buoys are arranged into two new buoy fields near the center of the view. These buoy fields are shown approximately 350 feet from shore.

Existing View



Simulation



Source: Existing photo taken by TRPA in 2016; Simulation prepared by Square One Productions in 2018

X14010019 01 017



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**Exhibit 9-29 Key View 5 - Near SR 28 Facing East
Across Agate Bay, Alternative 2**



Existing View



Simulation



Source: Existing photo taken by TRPA in 2016; Simulation prepared by Square One Productions in 2018

X14010019 01 018



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**Exhibit 9-30 Key View 6 - Along SR 28 Facing East
Across Carnelian Bay, Alternative 2**



The new piers are visible across the sandy beach and slightly reduce the intactness of the view. The additional visible mass associated with the new buoy fields detracts from views of the surface of the lake and also reduces the intactness of this view. The reduced visible mass of the buildings in the shoreland slightly improves the intactness of the shoreland, but not to an extent that compensates for the visual effect of the new piers and buoys. When viewed together, the intactness of the view is reduced, which could decrease the scenic quality rating for this scenic resource and/or for the roadway travel unit.

Key Viewpoint 7 – Along SR 89 Facing South Across McKinney Bay, Alternative 2

Exhibit 9-31 shows the existing view and a simulation of buildout of Alternative 2 as seen from KVP 7. The existing elements and their locations are described above under Alternative 1. The simulation shows the addition of four individual private piers and ten boats on buoys. The new piers are visible between the existing piers and the new boats are visible in the middleground of the left side of the view. No existing buildings in the shoreland are visible in the view, and the required visible mass offsets that would be required for the new piers are not shown.

The new piers are visible but do not substantially reduce the intactness of the view because they are consistent with the developed character of the view and they comply with design standards that require an open piling design and restrict the pier length to the existing pierhead line. The additional boats on buoys are visually similar to the existing boats in the view. However, the additional visible mass associated with these boats detracts from views of the surface of the lake and reduces the intactness of this view. This could reduce the scenic quality rating for this scenic resource and/or for the roadway travel unit.

Conclusion

As described above, Alternative 2 would authorize new shorezone structures that could affect views from the shore toward Lake Tahoe. New and redeveloped structures would be required to comply with applicable design standards addressing their location, length, width, and design. Piers, boat lifts, boat ramps, marinas, or other similar structures would be required to offset increases in visible mass at ratios that would result in a net reduction in visible mass. As with Alternative 1, these structures would be evaluated under the visual magnitude system in TRPA Code Section 66.3. Unlike Alternative 1, new or expanded structures would not be required to implement scenic improvements in the shoreland to achieve minimum required contrast ratings. The visible mass associated with new buoys would not be offset.

The effects of buildout of Alternative 1 would vary based on the location, intensity, and other characteristics of future projects. The intactness of views could be degraded in some scenarios, which would reduce the scenic threshold ratings. This potential reduction in scenic threshold ratings would be due to additional visible mass associated with new buoys and because reductions in the visible magnitude of shoreland structures would not be required in association with new or expanded shorezone structures. This would be a **significant** impact.

Alternative 3: Limit New Development

Alternative 3 would focus new shorezone structures at public facilities to maximize the number of people served by each new structure. It would authorize up to 365 new public buoys or slips, five new public piers, 86 new private multiple-use piers, and one new boat ramp. These new structures, and the redevelopment of existing structures would be subject to design and location standards, and scenic requirements described in Chapter 2, “Description of the Proposed Project and Alternatives.” The visual effects of buildout of Alternative 3 are shown in simulations of KVPs 5–7. Each of these simulations shows a buildout scenario for as viewed from a TRPA-designated scenic resource on the shore.

Key Viewpoint 5 - Near SR 28 Facing East Across Agate Bay, Alternative 3

Exhibit 9-32 shows the existing view and a simulation of buildout of Alternative 2 as seen from KVP 5. The existing elements and their locations are described above under Alternative 1.

Existing View



Simulation



Source: Existing photo taken by TRPA in 2016; Simulation prepared by Square One Productions in 2018

X14010019 01 019



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**Exhibit 9-31 Key View 7– Along SR 89 Facing South
Across McKinney Bay, Alternative 2**



Existing View



Simulation



Source: Existing photo taken by TRPA in 2016; Simulation prepared by Square One Productions in 2018

X14010019 01 024



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**Exhibit 9-32 Key View 5 - Near SR 28 Facing East
Across Agate Bay, Alternative 3**



The simulation shows the addition of three multiple-use piers and no additional buoys. One new pier of approximately 180 feet in length is visible in front of the existing piers. The other two new piers are farther away along the sandy beach but are barely visible due to the distance and intervening existing piers. The buildings in the shoreland are shown in a darker color than the existing view to reflect the changes that would be necessary to achieve minimum contrast ratings in Alternative 3. Additional vegetative screening is shown near these buildings, as would be necessary to meet the 3:1 visible mass offset requirement in this area.

The scenic quality of the sandy beach is slightly improved. One of the new piers is clearly visible but does not substantially reduce the intactness of the view of the beach because it is consistent with the existing partially-developed character of the shoreline in this area and is more than offset by the required scenic improvements in the shoreland. The reduced visual magnitude in the shoreland could increase the scenic quality rating for this scenic resource and/or for the roadway travel unit.

Key Viewpoint 6- Along SR 28 Facing East Across Carnelian Bay, Alternative 3

Exhibit 9-33 shows the existing view and a simulation of buildout of Alternative 3 as seen from KVP 6. The existing elements and their locations are described above under Alternative 1.

The simulation shows three additional multiple-use piers. Two new piers are visible in front of the existing pier on the left side of the view. The new piers are visible along the sandy beach near the center of the view. The existing buildings in the shoreland that are associated with new piers are shown a darker color with additional vegetative screening as would be necessary to meet the visible mass offset and minimum contrast rating requirements for the new piers.

The new piers are visible across the sandy beach and slightly reduce the intactness of the view. The reduced visible mass and visual magnitude of the buildings in the shoreland improves the intactness of the shoreland and compensates for the visual effect of the new piers. When viewed together, the intactness of the view is not substantially changed, and the scenic quality rating for this scenic resource and/or for the roadway travel unit would not change.

Key Viewpoint 7- Along SR 89 Facing South Across McKinney Bay, Alternative 3

Exhibit 9-34 shows the existing view and a simulation of buildout of Alternative 3 as seen from KVP 7. The existing elements and their locations are described above under Alternative 1. The simulation shows the addition of two multiple-use piers and no buoys. The new piers are visible between the existing piers. No existing buildings in the shoreland are visible in the view, and the required visible mass offsets and visual magnitude reductions that would be required for the new piers are not shown.

The new piers are visible but do not substantially reduce the intactness of the view because they are consistent with the developed character of the view and they comply with design standards that limit pier length and visible mass. The changes shown in the simulation modify the view, but not to the extent that would reduce the scenic quality ratings for the scenic resource and/or for the roadway travel unit.

Conclusion

As described above, Alternative 3 would authorize new shorezone structures that could affect views from the shore toward Lake Tahoe. New and redeveloped structures would be required to comply with applicable design standards addressing their location, length, width, and visible mass. Piers, boat lifts, boat ramps, marinas, or other similar structures would be required to offset increases in visible mass at ratios that would result in a net reduction in visible mass. As with Alternative 1, these structures would be evaluated under the visual magnitude system in TRPA Code Section 66.3. New or expanded piers would also be required to implement scenic improvements in the shoreland to achieve minimum required contrast ratings. The visible mass associated with new buoys would not be offset, however the estimated 300 new buoys would only be placed at marinas or other public facilities.

Existing View



Simulation



Source: Existing photo taken by TRPA in 2016; Simulation prepared by Square One Productions in 2018

X14010019 01 025



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**Exhibit 9-33 Key View 6 - Along SR 28 Facing East
Across Carnelian Bay, Alternative 3**



Existing View



Simulation



Source: Existing photo taken by TRPA in 2016; Simulation prepared by Square One Productions in 2018

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**Exhibit 9-34 Key View 7 – Along SR 89 Facing South
Across McKinney Bay, Alternative 3**



The effects of buildout of Alternative 3 would vary based on the location, intensity, and other characteristics of future projects. The intactness of views could be improved in some scenarios, which would increase the scenic threshold ratings. In other scenarios, the scenic quality ratings would be unchanged due to buildout of Alternative 3. This would be a **less-than-significant** impact.

Alternative 4: Expand Public Access and Reduce Existing Development

Alternative 4 would prohibit new private shoreline structures, except where they result in a net reduction in the number of structures. It would allow for up to 15 new public piers and no other new shorezone structures. Any new or expanded public piers would be required to comply with the same visible mass offsets as Alternative 1, which would result in a net reduction in visible mass from the construction of any new public piers.

In addition, each proposed public pier would be evaluated through a project-level scenic assessment that would evaluate the project's effect on potentially affected scenic travel units and resources. No other new or expanded shoreline structures would be allowed, and pier reconfigurations would only be allowed if they reduce the visible mass of the existing pier. For these reasons, Alternative 4 would have very little effect on the scenic quality of views from the shore toward Lake, and it is not necessary to evaluate Alternative 4 with visual simulations. Due to the project-level assessment and mitigation of scenic effects of public piers, and the prohibition on other new or expanded shoreline structures, Alternative 4 would have a **less-than-significant** effect on scenic quality of views from the shore.

Mitigation 9-2a: Implement Mitigation Measure 9-1a to offset the visible mass of buoys

This mitigation measure applies to Alternatives 1, 2, and 3.

TRPA will implement Mitigation Measure 9-1a, "Offset the visible mass of buoys," as described above.

Mitigation 9-2b: Implement Mitigation Measure 9-1a to require visual magnitude reductions in the shoreland

This mitigation measure applies to Alternative 2.

TRPA will implement Mitigation 9-1c: "Require visual magnitude reductions in the shoreland," as described above.

Significance after Mitigation

Mitigation Measure 9-2 would require the removal or visual screening of existing visible mass to offset the additional visible mass that could result from new buoys. These offsets would occur near the project site or in scenic travel units that are not in attainment. With implementation of this mitigation measure, Alternatives 1, 2, and 3 would result in a net reduction the amount of visible mass associated with human-made structures on or along Lake Tahoe. Mitigation Measure 9-2b would require that Alternative 2 include the same minimum contrast rating requirements as Alternative 1. As described above for Alternative 1, adherence to this requirement would reduce the visual magnitude of development in the shoreland, which would compensate for the effect of additional shorezone structures. After implementation of the mitigation measures, Alternatives 1, 2, and 3 would result in a net reduction in visible mass and would reduce the visual magnitude of shoreland development. The impact of Alternatives 1, 2, and 3 would be **less than significant** after mitigation.

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