

August 2021



Initial Study/Proposed Negative Declaration

Land Bank Pier Program

Prepared for:

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LIST OF ABBREVIATIONS

AB	Assembly Bill
AMWG	adaptive management working group
ASTM	American Society for Testing and Materials
BMP	best management practices
CAAQS	California Ambient Air Quality Standards
CalEMA	California Emergency Management Agency
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CH ₄	methane
CO	carbon monoxide
CO ₂	carbon dioxide
Conservancy	California Tahoe Conservancy
CRHR	California Register of Historical Resources
CSLC	California State Lands Commission
CWA	Clean Water Act
DGS	California Department of General Services, Real Estate Services Division
EDCAQMD	El Dorado County Air Quality Management District
EIR	environmental impact report
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESA	endangered species act
FTA	Federal Transit Authority
GHG	greenhouse gases
HCP	habitat conservation plans
in/sec	inches per second
IS/ND	initial study/negative declaration
LCD	Bailey Land Capability District
LCT	Lahontan Cutthroat Trout
LOP	limited operating period
LSAA	Lake and Streambed Alteration Agreement
LTAB	Lake Tahoe Air Basin

MOU	Memorandum of Understanding
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NCCP	natural community conservation plans
NRHP	National Register of Historic Places
NTU	Nephelometric Turbidity Units
OPR	Office of Planning and Research
PAS	plan area statements
PCAPCD	Placer County Air Pollution Control District
PG&E	Pacific Gas and Electric
PIA	TRPA Project Impact Assessment Guidelines
PPV	peak particle velocity
PRC	Public Resource Code
proposed program	Land Bank Pier Program
RD	renewable diesel
REC	recognized environmental conditions
RHNA	Regional Housing Needs Assessment
RWQCB	Regional Water Quality Control Board
SEZ	stream environment zone
Shoreline Plan	Tahoe Regional Planning Agency's Shoreline Plan
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SR	State Route
TAC	toxic air contaminants
TAG	technical advisory group
TMDL	total maximum daily load
TRPA	Tahoe Regional Planning Agency
TSG	Transportation Study Guidelines
TYC	Tahoe yellow cress
USFWS	U.S. Fish and Wildlife Service
VdB	vibration decibels
VMT	vehicles miles traveled

1 INTRODUCTION

1.1 INTRODUCTION AND REGULATORY GUIDANCE

This Initial Study/Negative Declaration (IS/ND) has been prepared by the California Tahoe Conservancy (Conservancy), as lead agency, and the California Department of General Services, Real Estate Services Division (DGS) to evaluate potential environmental effects resulting from the proposed Land Bank Pier Program (proposed program). The proposed program involves authorizing the sale of coverage and/or restoration credits from the Conservancy land bank for the construction of new piers, relocation/reconstruction of piers, modifications to existing piers and moorings, construction of structures that provide access to new or existing piers, and other access structures in the shorezone, consistent with the Tahoe Regional Planning Agency (TRPA) Shoreline Plan (TRPA 2018a). Chapter 2, "Program Description," presents the detailed program information. The Shoreline Plan was subject to evaluation in an Environmental Impact Statement (EIS) consistent with the Tahoe Regional Planning Compact, TRPA Regional Plan, and Code of Ordinances. This IS/ND tiers from, and incorporates by reference information from, the Shoreline Plan EIS (TRPA 2018b), where appropriate.

Under CEQA, the lead agency is the public agency with primary responsibility for carrying out or approving a project that has the potential for resulting, directly or indirectly, in a physical change to the environment (State CEQA Guidelines Section 15367). The Conservancy is the CEQA lead agency because it is responsible for taking the discretionary action to consider approval of the sale of coverage and/or restoration credits for proposed pier related land bank transactions.

This document has been prepared in accordance with CEQA (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.). An initial study is prepared by a lead agency to determine if a project may have a significant effect on the environment (State CEQA Guidelines Section 15063[a]), and thus to determine whether an environmental impact report (EIR) or negative declaration must be prepared. In accordance with State CEQA Guidelines Section 15070, a "public agency shall prepare...a proposed negative declaration or mitigated negative declaration...when: (a) The Initial Study shows that there is no substantial evidence...that the project may have a significant impact on the environment, or (b) The Initial Study identifies potentially significant effects but revisions to the project plans or proposal are agreed to by the applicant and such revisions would reduce potentially significant effects to a less-than-significant level." In this circumstance, the lead agency prepares a written statement describing its reasons for concluding that the project would not have a significant effect on the environment and, therefore, does not require the preparation of an EIR. By contrast, an EIR is required when the project may have one or more significant environmental effects that cannot clearly be reduced to less-than-significant levels by adoption of mitigation measures or by revisions to the project design.

As described in the environmental checklist (Chapter 3), the proposed program would not result in significant environmental impacts. Therefore, an IS/ND is the appropriate document for compliance with the requirements of CEQA. This IS/ND conforms to these requirements and to the content requirements of State CEQA Guidelines Section 15071.

1.2 PUBLIC COMMENTS

The purpose of this document is to present to decision-makers and the public information about the environmental consequences of implementing the proposed program. This disclosure document is being made available to the public for review and comment. This IS/ND will be available for a 30-day public review period from August 2, 2021 to August 31, 2021.

Supporting documentation referenced in this document is available for review at the following link:

<https://tahoe.ca.gov/land-bank-pier-program-is-nd-documents>

Comments should be addressed to:

Thea Graybill
California Tahoe Conservancy
1061 Third Street
South Lake Tahoe, CA 96150

E-mail comments may be addressed to: thea.graybill@tahoe.ca.gov

If you wish to send written comments (including via e-mail), they must be postmarked by August 31, 2021.

After comments are received from the public and reviewing agencies, the Conservancy may (1) adopt the ND and approve the program; (2) undertake additional environmental studies; or (3) abandon the program. If the program is approved, individual applications for land coverage and/or restoration credits consistent with the proposed program may be approved by the Conservancy without additional CEQA review.

1.3 SUMMARY OF FINDINGS

Chapter 3 of this document contains the analysis and discussion of potential environmental impacts of the proposed program.

Based on the issues evaluated in that chapter, it was determined that the proposed program would have either no impact or a less-than-significant impact related to all the issue areas identified in the Environmental Checklist, included as Appendix G of the State CEQA Guidelines. These include the following issue areas:

- ▶ Aesthetics
- ▶ Agriculture and Forest Resources
- ▶ Air Quality
- ▶ Biological Resources
- ▶ Cultural Resources
- ▶ Energy
- ▶ Geology and Soils
- ▶ Greenhouse Gas Emissions
- ▶ Hazards and Hazardous Materials
- ▶ Hydrology and Water Quality
- ▶ Land Use and Planning
- ▶ Mineral Resources
- ▶ Noise
- ▶ Population and Housing
- ▶ Public Services
- ▶ Recreation
- ▶ Transportation
- ▶ Tribal Cultural Resources
- ▶ Utilities and Service Systems
- ▶ Wildfire

1.4 ENVIRONMENTAL PERMITS

In addition to Conservancy's approval of the proposed program, future pier related land bank transactions may require permits or approvals from TRPA, U.S. Army Corps of Engineers, California State Lands Commission (CSLC), California Department of Fish and Wildlife (CDFW), and Lahontan Regional Water Quality Control Board (RWQCB). These permits and approvals are described in Chapter 2 "Program Description."

1.5 DOCUMENT ORGANIZATION

This IS/ND is organized as follows:

Chapter 1: Introduction. This chapter introduces the environmental review process. It describes the purpose and organization of this document and presents a summary of findings.

Chapter 2: Program Description. This chapter describes the purpose of and need for the proposed program, identifies program objectives, and provides a detailed description of the program.

Chapter 3: Environmental Checklist. This chapter presents an analysis of a range of environmental issues identified in the CEQA Environmental Checklist and determines if program actions would result in no impact, a less-than-significant impact, a less-than-significant impact with mitigation incorporated, or a potentially significant impact. If any impacts were determined to be potentially significant, an EIR would be required. For this program, however, none of the impacts were determined to be significant after implementation of mitigation measures.

Chapter 4: References. This chapter lists the references used in preparation of this IS/ ND.

Chapter 5: List of Preparers. This chapter identifies report preparers.

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2 PROGRAM DESCRIPTION

As part of the Land Bank Pier Program (proposed program), the Conservancy proposes to authorize the sale of coverage and/or restoration credits from its land bank for the construction of new piers, structures that provide access to new piers, and modifications to existing piers and moorings on the California side of Lake Tahoe, consistent with the Tahoe Regional Planning Agency's (TRPA's) Shoreline Plan (Shoreline Plan). The proposed program would be an extension of the Conservancy's existing land bank program, which acquires, restores, and sells development rights including land coverage and/or restoration credit consistent with TRPA's Regional Plan.

The Shoreline Plan includes regulations for shoreline structures including piers, buoys, boat ramps, and marinas to support water-dependent recreation at Lake Tahoe and ensure effective natural resource management for continued environmental threshold attainment (TRPA 2018a). While the Shoreline Plan was subject to robust evaluation in an Environmental Impact Statement (EIS) consistent with the Tahoe Regional Planning Compact, TRPA Regional Plan, and Code of Ordinances (Code), no California Environmental Quality Act (CEQA) review was completed. Future land bank transactions would be consistent with the standards and requirements of the Shoreline Plan, but the specific location and characteristics of individual structures is not yet known. This initial study/negative declaration (IS/ND) evaluates the applicable land bank program activities and tiers from and incorporates by reference the relevant analysis in the Shoreline Plan EIS.

2.1 PROGRAM BACKGROUND

In October 2018, TRPA adopted a Shoreline Plan that established regulations and management programs for the shorezone of Lake Tahoe, within California and Nevada (see Section 2.2, below, for a definition of the shorezone). Among other things, the Shoreline Plan established limits on the numbers of new shorezone structures such as piers, moorings, marina, and public boat ramps, as well as standards and regulations pertaining to their construction and use. The Shoreline Plan allows for the phased construction of up to 138 new piers throughout the Lake Tahoe Basin in California and Nevada, including public and private piers. Pier construction necessarily involves land coverage in the backshore, which in turn requires the transfer of land coverage and/or restoration credits to construct walkways, pilings, pier decking, and other related structures that qualify as land coverage under the TRPA Code of Ordinances.

TRPA regulates impervious land coverage within the Lake Tahoe Basin. The TRPA Code includes specific standards for allowable land coverage, including in the shorezone, based on a parcel's soil type, slope, and other characteristics. The Conservancy has a long history of buying and selling impervious coverage and other marketable rights under TRPA's growth management system, which limits the level of commercial, tourist-serving, and residential development in the Lake Tahoe Basin. Through a 1988 Memorandum of Understanding with TRPA, the Conservancy established a Land Bank to mitigate excess land coverage on properties with existing development and to facilitate appropriate transfers of coverage and other marketable rights in accordance with TRPA's rules. The Conservancy acquires properties from willing sellers, restores the land and banks the marketable rights, then seeks to resell the land coverage and/or marketable rights through a public process, using the revenue to further the acquisition program or other Conservancy objectives.

2.2 INCORPORATION BY REFERENCE

TRPA prepared a program EIS for the environmental review and approval of the Shoreline Plan, a comprehensive set of ordinances, design standards, and implementation programs that govern use and development along the shore of Lake Tahoe. The overarching goal of the Shoreline Plan is to enhance the recreational experience along Lake Tahoe's shores while protecting the environment and responsibly planning for the future. The Shoreline Plan is intended to manage the use and development of the shoreline consistent with the best available science. It regulates the number, timing, and design of new shoreline facilities including piers, buoys, boat lifts, marinas, and boat slips. This Shoreline Plan EIS provides a regional consideration of the effects of implementation of the Shoreline Plan, including buildout

of all shoreline structures permissible under the Shoreline Plan. It includes program mitigation measures that have been adopted by TRPA to avoid or reduce significant environmental effects.

This IS/ND, therefore, incorporates by reference the entirety of the Shoreline Plan EIS (California State Clearinghouse No. 2017072020), as allowed by CEQA Guidelines Section 15150. In Chapter 1, "Introduction", the Draft EIS provides context and background related to the Shoreline Plan, identifies the objectives for the Shoreline Plan, and provides other material to help readers understand essential concepts. The Draft EIS describes in detail the features of the Shoreline Plan and alternatives in Chapter 2, "Description of the Proposed Project and Alternatives". Chapters 3 through 18 of the Draft EIS include technical analysis related to a range of environmental topics. These chapters explain the environmental setting, regulatory framework, environmental effects, significance, and mitigation measures for each environmental topic. Additional supporting information is provided in Chapters 18 through 20, and in a series of technical appendices. The Final EIS contains comments received on the Draft EIS and responses to those comments, as well as revisions to the Shoreline Plan and revisions and corrections to the Draft EIS. Relevant portions of the Shoreline Plan EIS are summarized where appropriate in Chapter 3 of this IS/ND.

The Shoreline Plan EIS can be obtained by request from the California Tahoe Conservancy or can be viewed or downloaded online.

The Shoreline Plan Draft EIS is available online here:

http://ascentenvironmental.com/files/5816/2751/6953/Shoreline_DEIS.pdf

The Shoreline Plan Final EIS is available online here:

http://ascentenvironmental.com/files/9216/2751/6703/Shoreline_FEIS.pdf

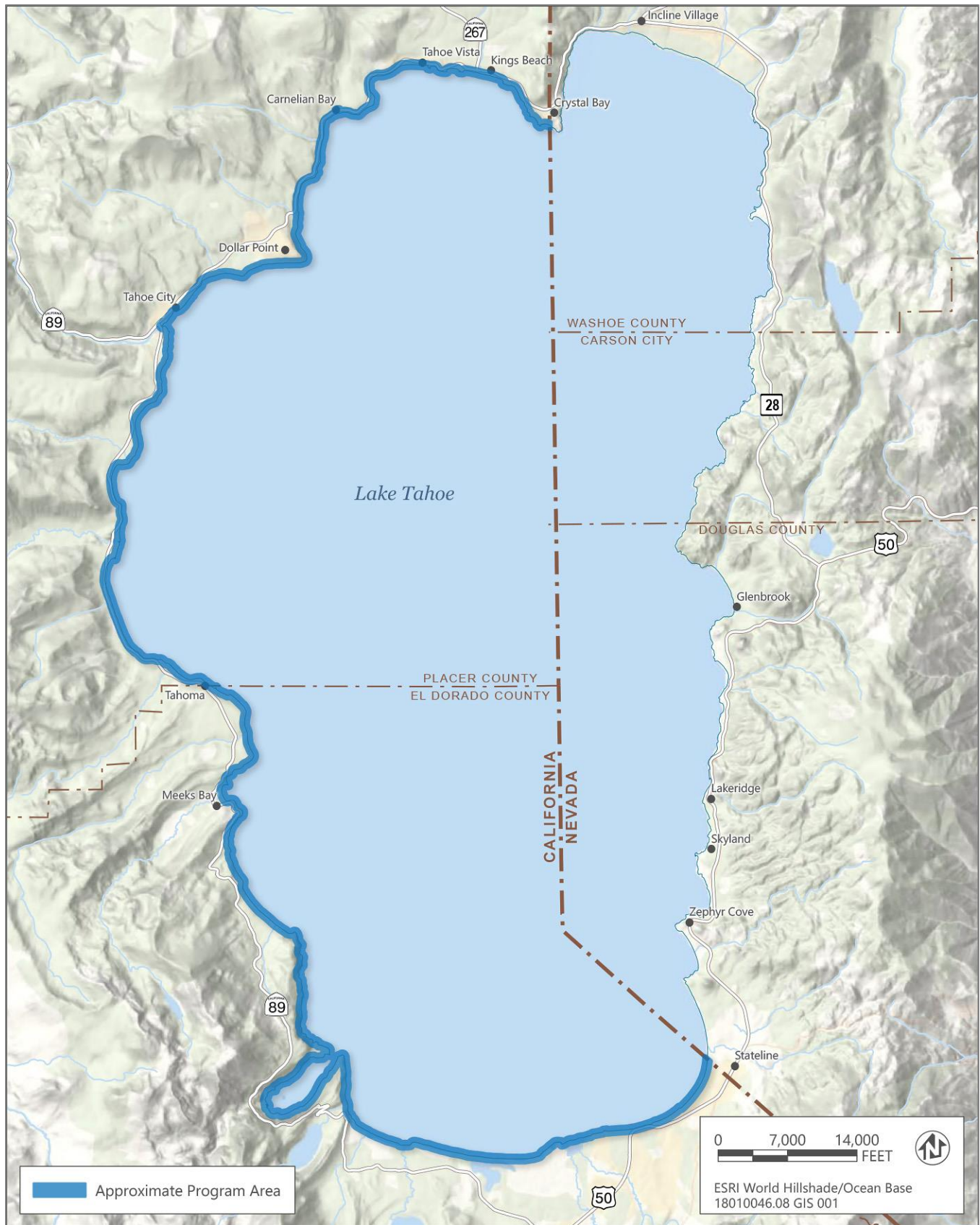
2.3 PROGRAM LOCATION

The proposed program would be implemented within the shorezone of the California side of Lake Tahoe in Placer and El Dorado Counties (Figure 2-1). The TRPA Code of Ordinances (Code; Chapter 83) defines the shorezone as the area consisting of the nearshore, foreshore, and backshore (Figure 2-2). While not technically defined as a part of the shorezone, the lakezone is critical to understanding the effects of the Shoreline Plan because many of the structures built in the shorezone would affect the lakezone. TRPA Code defines the geographic limits of those areas as follows:

- ▶ Nearshore: The zone extending from the low-water elevation of Lake Tahoe (6,223.0 feet Lake Tahoe datum [LTD]) to a lake bottom elevation of 6,193.0 feet LTD, but in any case, a minimum lateral distance of 350 feet measured from the shoreline.
- ▶ Foreshore: The zone of a lake-level fluctuation that is the area between the high- and low-water elevation (for Lake Tahoe, elevations of 6,229.1 feet LTD and 6,223.0 feet LTD, respectively).
- ▶ Backshore: The land area located between the high-water line of the lake (6,229.1 feet LTD) and either the upland area of instability (as determined by a site assessment) or the wave run-up area plus 10 feet, whichever is greater.
- ▶ Lakezone: The area of the lake extending beyond the lakeward limits of the nearshore.

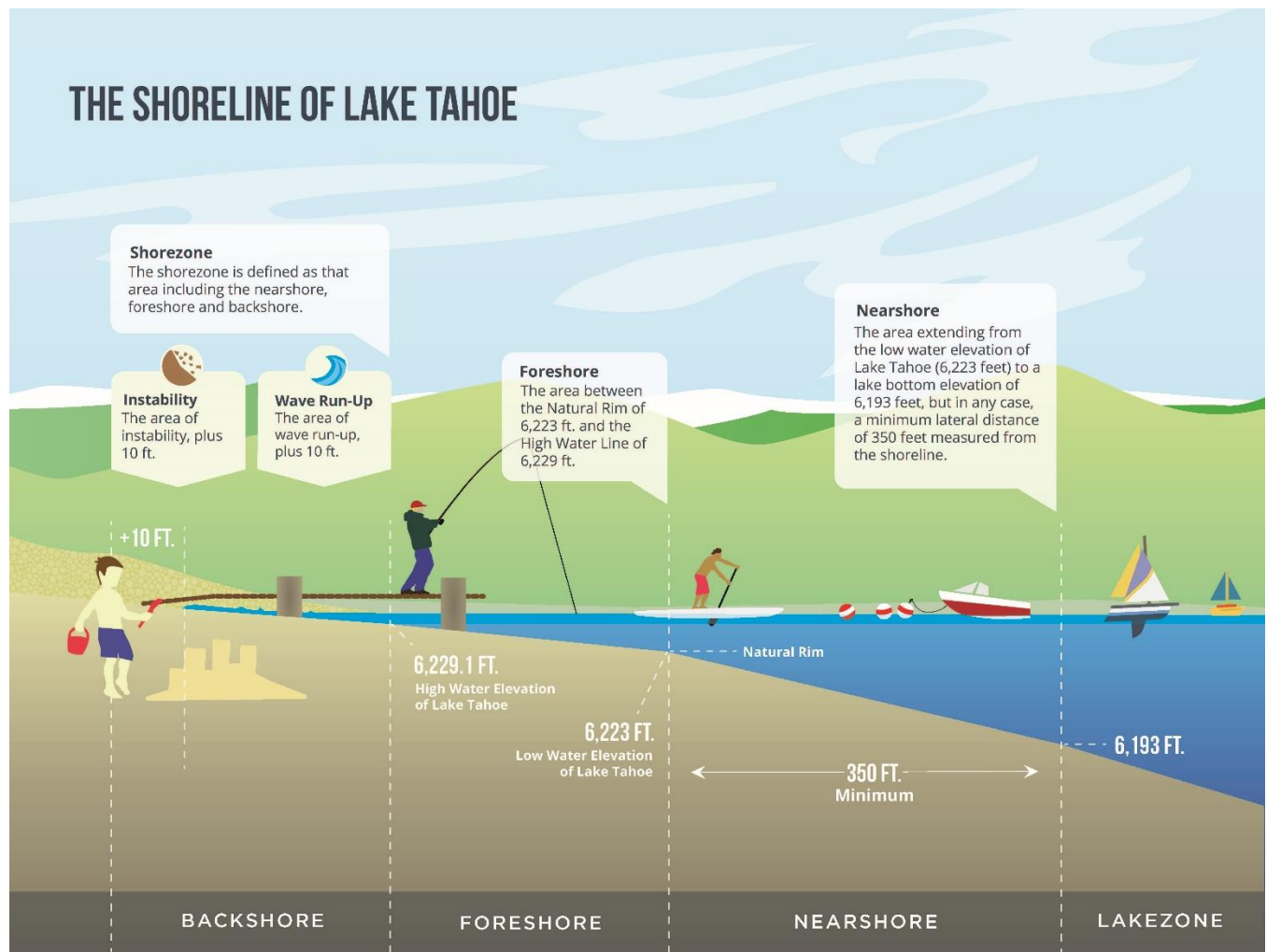
The proposed program involves authorizing the sale of coverage and/or restoration credits from the Conservancy land bank, which would result in the construction of new piers, relocation/reconstruction of piers, modifications to existing piers and moorings, construction of structures that provide access to new or existing piers, and other access structures in the shorezone. The specific locations of new and/or modified structures that would occur under this program are not known at this time, but the future locations of structures would be guided by the provisions of Section 84.4 of the TRPA Code, discussed further below under Section 2.5.1, "Shoreline Plan Requirements."

Private parcels potentially eligible for a new pier are shown in Figure 2-3. Parcel eligibility estimates are based on parcel-level eligibility criteria described in the 2018 Shoreline Plan EIS, including parcel size, absence of an existing pier, setback requirements, and other location criteria (TRPA 2018b:2-28). Project-level verification would be required to determine the actual eligibility of any private parcel for a new pier. Under the Shoreline Plan, new public piers could be located on public land throughout the shoreline in California or Nevada.



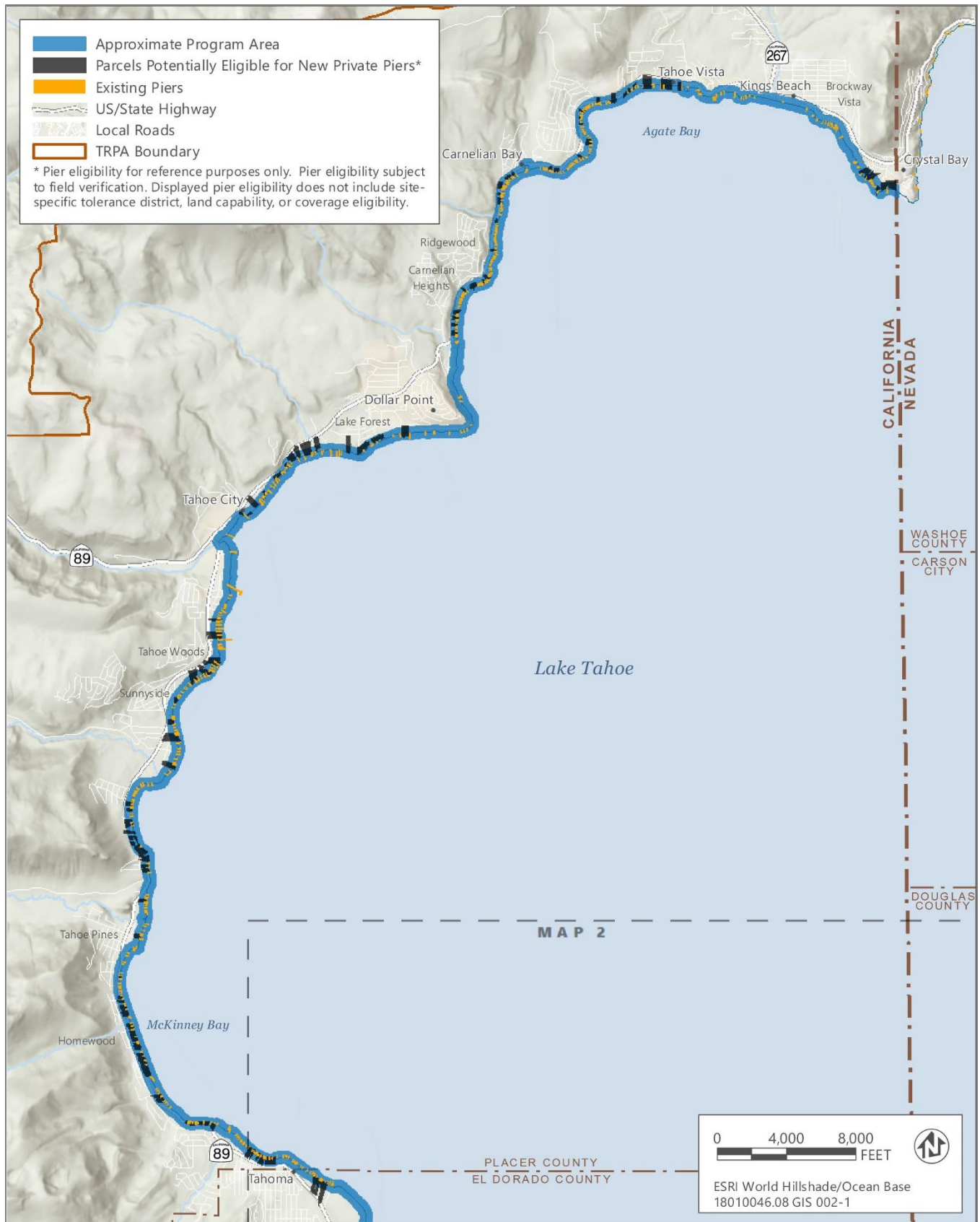
Source: Compiled by Ascent Environmental in 2021

Figure 2-1 Program Area



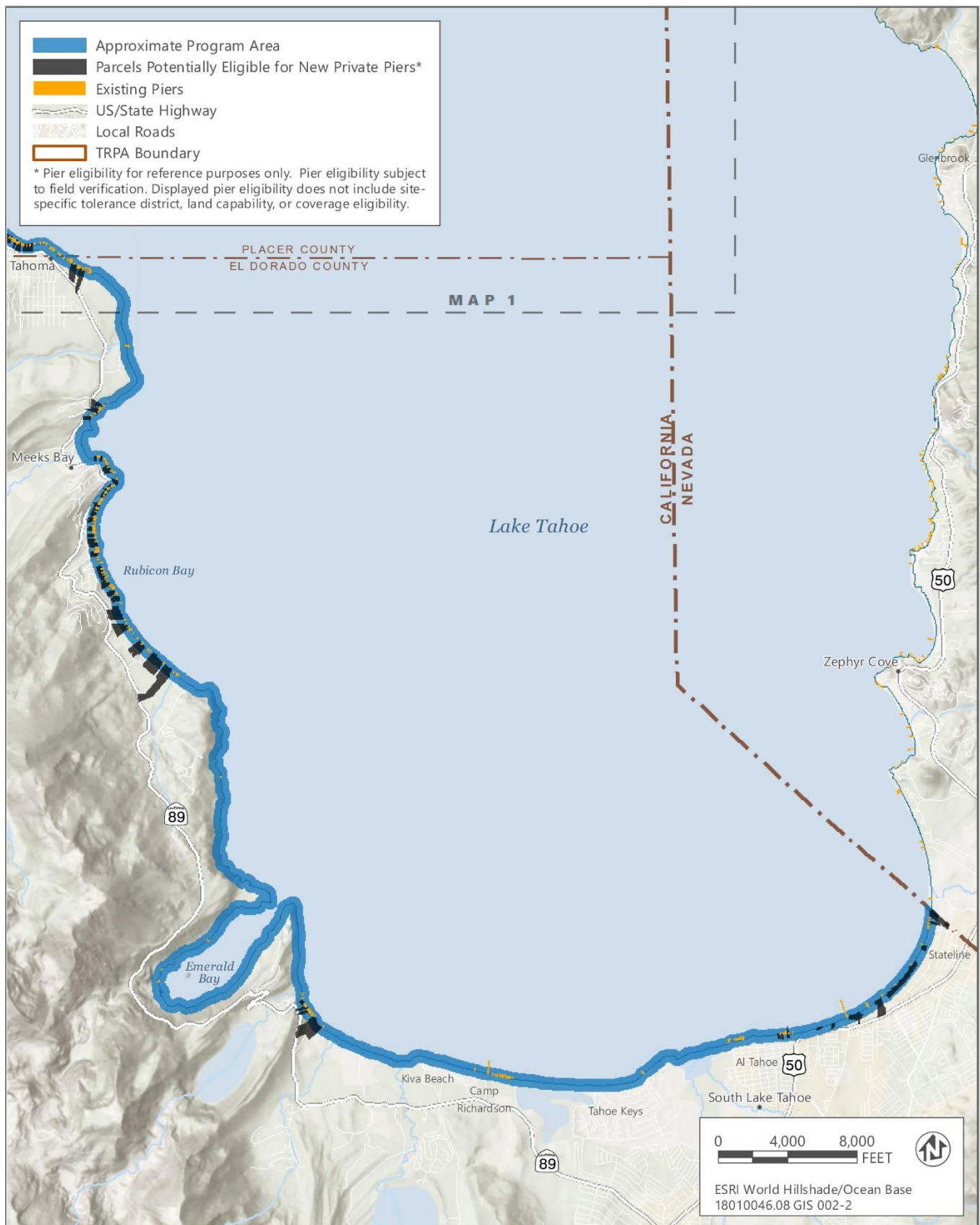
Source: Provided by TRPA in 2018

Figure 2-2 Shorezone Diagram



Source: compiled by Ascent Environmental in 2018

Figure 2-3a Estimate of Private Parcels Potentially Eligible For A Pier



Source: compiled by Ascent Environmental in 2018

Figure 2-3b Estimate of Private Parcels Potentially Eligible For A Pier

2.4 PROGRAM OBJECTIVE

The Conservancy's objective is to facilitate the Shoreline Plan through the sale of land coverage and/or restoration credits for the construction of new piers, relocation/reconstruction of piers, modifications to existing piers and moorings, construction of structures that provide access to new or existing piers, and other access structures in the shorezone.

2.5 PROPOSED PROGRAM DESCRIPTION

Piers require coverage in the backshore and other portions of a property for support structures such as walkways and steps, or pier decking and pilings in the backshore. If the property requires additional coverage, landowners may: 1) purchase land coverage and/or restoration credits from the Conservancy, 2) from a private party, or 3) acquire, restore, and transfer these rights from another property. Therefore, the proposed program would consist of adopting land bank pier program guidelines that would allow for the sale of coverage and/or restoration credits for piers and pier related structures (e.g., support facilities in the backshore and other parts of the littoral parcel, which is a parcel of land which adjoins the bed of a navigable body of water) in accordance with the Shoreline Plan.

The Conservancy's land bank provides a possible source for applicants to acquire coverage and/or restoration credit for land bank transactions. The Conservancy's actions, as part of the proposed program, would allow the construction of new piers, reconstruction of existing piers, and construction of other support structures. The Conservancy has no direct role in reviewing or approving proposed land bank transactions. Thus, relying on analyses in the Shoreline Plan EIS, this document assesses both the effects of pier support facilities accommodated by the Land Bank Program and of the piers themselves.

The TRPA land capability and coverage requirements are described in section 7.2.2, "Tahoe Regional Planning Agency" of the Shoreline Plan EIS (TRPA 2018b: 7-2). All land bank transactions would be required to demonstrate compliance with existing TRPA regulations. The base allowable coverage associated with the backshore is one percent. TRPA Code Section 85.5.4 allows land coverage and/or restoration credit to provide access to an approved or legally existing structure or use in the nearshore or foreshore provided that the coverage/restoration credit is mitigated through application of best management practices (BMPs), and coverage and/or restoration credit, or other required development rights is transferred pursuant to TRPA Code.

Further protections are provided for Shorezone Tolerance District 1, which is described on pages 7-7 through 7-9 of the Shoreline Plan EIS. This tolerance district is treated as a stream environment zone (SEZ) for coverage purposes (TRPA Code Section 83.7.2.E). In Shorezone Tolerance District 1, coverage would only be permitted for footpaths that provide access to the shoreline while minimizing environmental impacts. The proposed program would be required to comply with these TRPA requirements, which would prohibit new piers in Shorezone Tolerance District 1.

TRPA would serve as the primary agency with responsibility to review and approve proposed land bank transactions. TRPA would review each pier proposal for consistency with the requirements of the Shoreline Plan and would only approve land bank transactions that comply with all applicable requirements. The following sections describe the Shoreline Plan requirements that would apply to land bank transactions seeking coverage and/or restoration credits under the proposed program.

2.5.1 Shoreline Plan Requirements

All land bank transactions seeking coverage and/or restoration credits under the proposed program are required to comply with Chapters 80–85 of the TRPA Code of Ordinances pertaining to the Shorezone:

- ▶ Chapter 80 Review of Projects in the Shorezone and Lakezone. This chapter sets forth standards and regulations related to findings that must be made by TRPA prior to approving a land bank transaction in the shorezone or lakezone.

- ▶ Chapter 81 Permissible Uses and Structures in the Shorezone and Lakezone. This chapter identifies standards and regulations related to the allowable uses and accessory structures in the shorezone and lakezone.
- ▶ Chapter 82 Existing Structures and Exempt Activities. This chapter describes standards and regulations for the maintenance, repair, and modification of piers and other existing structures in the nearshore and foreshore.
- ▶ Chapter 83 Shorezone Tolerance Districts and Development Standards. This chapter sets forth standards and regulations related to management strategies and development restrictions with respect to the eight shorezone tolerance districts, including standards for the tolerance districts, standards for designating shorezones as man-modified, and design standards.
- ▶ Chapter 84 Development Standards Lakeward of High Water in the Shorezone and Lakezone. This chapter includes standards and regulations related to the placement of new piers, buoys, and other structures in the nearshore and foreshore 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.
- ▶ Chapter 85 Development Standards in the Backshore. This chapter addresses standards and regulations related to limitations on disturbance to vegetation and construction activity within the backshore.

The Shoreline Plan allows a maximum of 86 new private piers in the program area (in California) and 10 new public piers that could be distributed throughout the entire shoreline in either California or Nevada. It includes distribution and density standards intended to result in an equitable distribution of new piers around the lake and limit the number of piers within visually sensitive areas. The Shoreline Plan includes incentives for multiple-use piers that provide access to more than one property owner, and it includes provisions that would retire pier development potential through deed restrictions. It regulates the rate of new pier approvals and includes pier design standards intended to protect navigation, recreational access, and limit scenic impacts. The Shoreline Plan also includes incentives to restore stream mouths and areas with degraded scenic conditions by encouraging the transfer of existing piers out of stream mouth protection areas and scenic travel units that are not in attainment of threshold standards.

Private piers cannot be used for permanent boat moorage; therefore, piers would not directly affect boating levels on Lake Tahoe.

PIER ALLOCATION

The Shoreline Plan allows for a maximum of 10 new public piers and 128 new private piers throughout the entire shoreline of Lake Tahoe. A total of 86 new private piers could be permitted in the proposed program area with 58 piers in Placer County and 28 piers in El Dorado County (Table 2-1). Up to 12 new private piers lake-wide may be permitted every 2 years with any remaining balance rolling over to subsequent years. The Shoreline Plan prioritizes multiple-use private piers that serve two or more property owners. Of the private piers, no more than 20 percent may be single-parcel piers. The Shoreline Plan also limits the number of private piers that can be developed in areas designated as visually sensitive character types (i.e., sandy beaches where the piers would be more visually prominent). Public piers may be permitted on a first-come, first-served basis.

Table 2-1 Private Pier Distribution

Location	Total	Allowed in Visually Sensitive Character Types
California	86	13
Placer County	58	7
El Dorado County	28	6

Source: TRPA 2018a

PIER LOCATION AND ELIGIBILITY

Private pier eligibility is based on a variety of parcel characteristics including location, setbacks, and deed restrictions as set forth in TRPA Code Section 84.4.2. New piers are prohibited within 200 feet of stream inlets. In most cases, applications for multiple-use private piers will be prioritized over single-parcel private piers. TRPA will permit additional private piers according to geographic divisions and the location of Visually Sensitive Areas. Only multiple-parcel piers are allowed in Visually Sensitive Areas, the total number of which is shown in Table 2-1. Other location standards are summarized in Table 2-2.

PIER DESIGN STANDARDS

All new private piers would have to comply with the applicable design standards shown in Table 2-2 and Figures 2-4 and 2-5. To incentivize owners and operators of piers that provide access for more than one littoral parcel owner, multiple-use piers are allowed to comply with different design standards depending on the number of littoral parcels or homeowner's association units (i.e., residences) served by the pier (Table 2-2).

OTHER STRUCTURES

Other structures that could be constructed under the proposed program (e.g., walkways or steps) would also adhere to relevant TRPA Code requirements. Section 80.4 of the TRPAs Code of Ordinances defines general standards for all shorezone projects. In addition, Section 83.11 of the TRPA Code of includes design standards within the shorezone, including requiring the color of structures be compatible with their surroundings. Section 84.8 of TRPA Code provides requirements for other structures, including that access structures in the backshore that provide access to the nearshore or foreshore must be sized no larger than necessary to provide safe and functional access and must meet all applicable mitigation requirements.

Table 2-2 Pier Design Standards

Specification	Single Use	Multiple Use ¹ Serves One to Two Units	Multiple Use ¹ Serves Three to Four Units or Two Littoral Parcels	Multiple Use ¹ Serves Five to 20 Units or Three Littoral Parcels	Multiple Use ¹ Serves More Than 20 Units or More Than Four Littoral Parcels
Length ²	To 6,219 feet LTD or pierhead line, whichever is more limiting	Same as single use	30 feet lakeward of 6,219 feet LTD or 60 feet lakeward of pierhead line, whichever is more limiting	30 feet lakeward of 6,219 feet LTD or 60 feet lakeward of pierhead line, whichever is more limiting	30 feet lakeward of 6,219 feet LTD or 60 feet lakeward of pierhead line, whichever is more limiting
Width	Maximum 10 feet	Same as single use	Maximum 15 feet ³	Maximum 15 feet ³	Maximum 15 feet ³
Side setback	Minimum 20 feet from each property edge for new piers, and 5 feet from projected property line for existing piers	Same as single use			
Visible mass ⁴	Maximum 220 square feet	Same as single use	Maximum 400 square feet	Maximum 460 square feet	Maximum 520 square feet
Location	Minimum 40 feet from any other pier, measured at the pierhead	Same as single use			
Catwalk	Maximum 3 feet wide and 30 feet long	Same as single use	Maximum 3 feet wide and 45 feet long	Maximum 3 feet wide and 45 feet long	Maximum 3 feet wide and 45 feet long
Boat lift	1 allowed	Same as single use	Up to 4 allowed	Up to 4 allowed	Up to 4 allowed

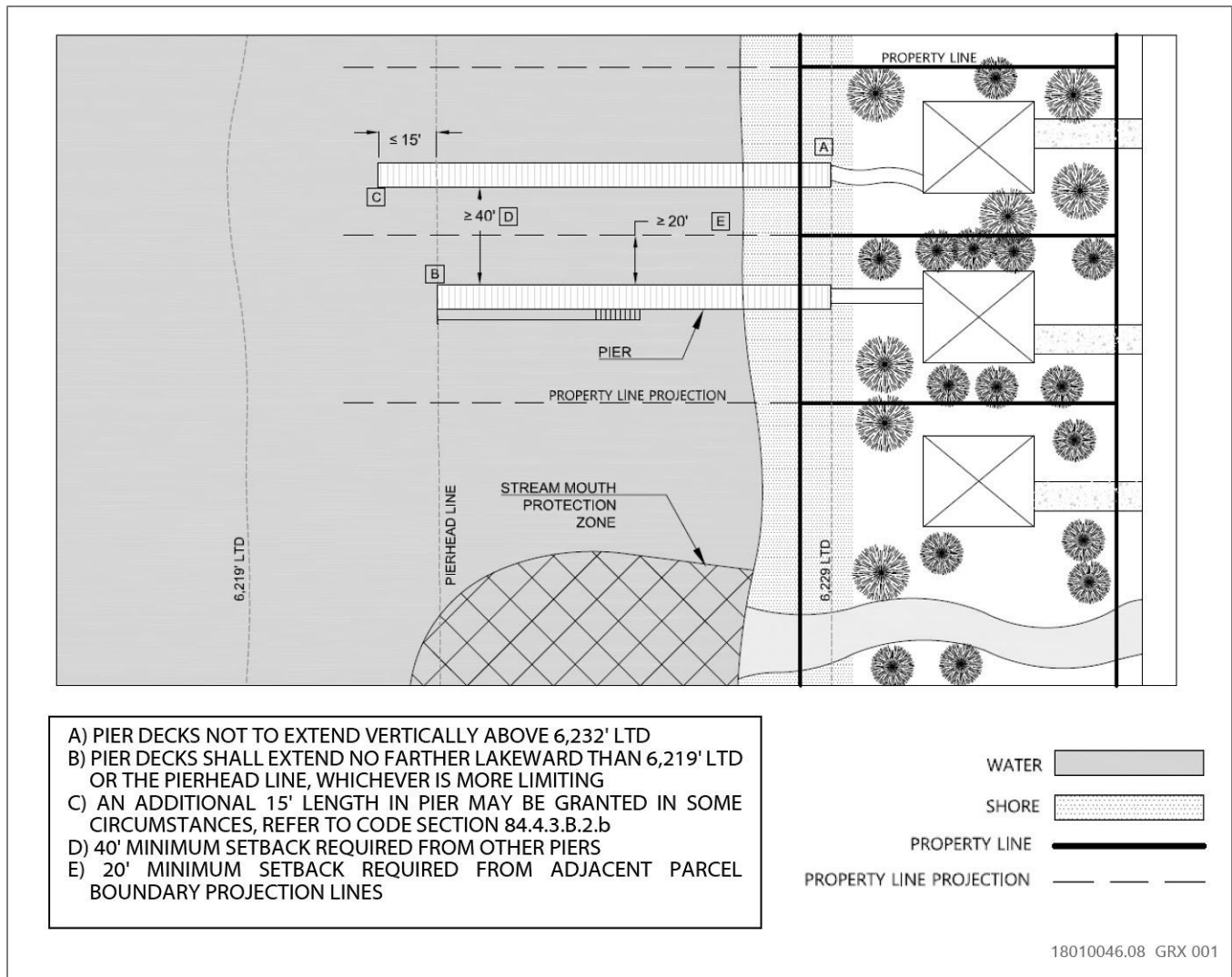
¹ Residential units may have access to a pier structure, even if they are located in the upland. Upland units are eligible for a multiple-use pier at the development standards identified above. Littoral parcels also have access to multiple-use pier structures at the development standards identified above. Note that more than one residential property can be located on a single littoral parcel. These development standards have been identified to limit the size of a pier serving multiple upland units that have only one littoral parcel.

² If an applicant (including marinas) needs additional pier length for proper function, TRPA standards would allow up to an additional 15 feet lakeward of the pierhead line, provided that the increase in water depth over the additional 15 feet is a minimum of 0.5 foot, or 6 inches (equal to 3-percent grade).

³ The visible mass calculations must include catwalks, but a boat lift, boat, and safety railings do not have to be included. Visible mass above the limits specified above must be mitigated.

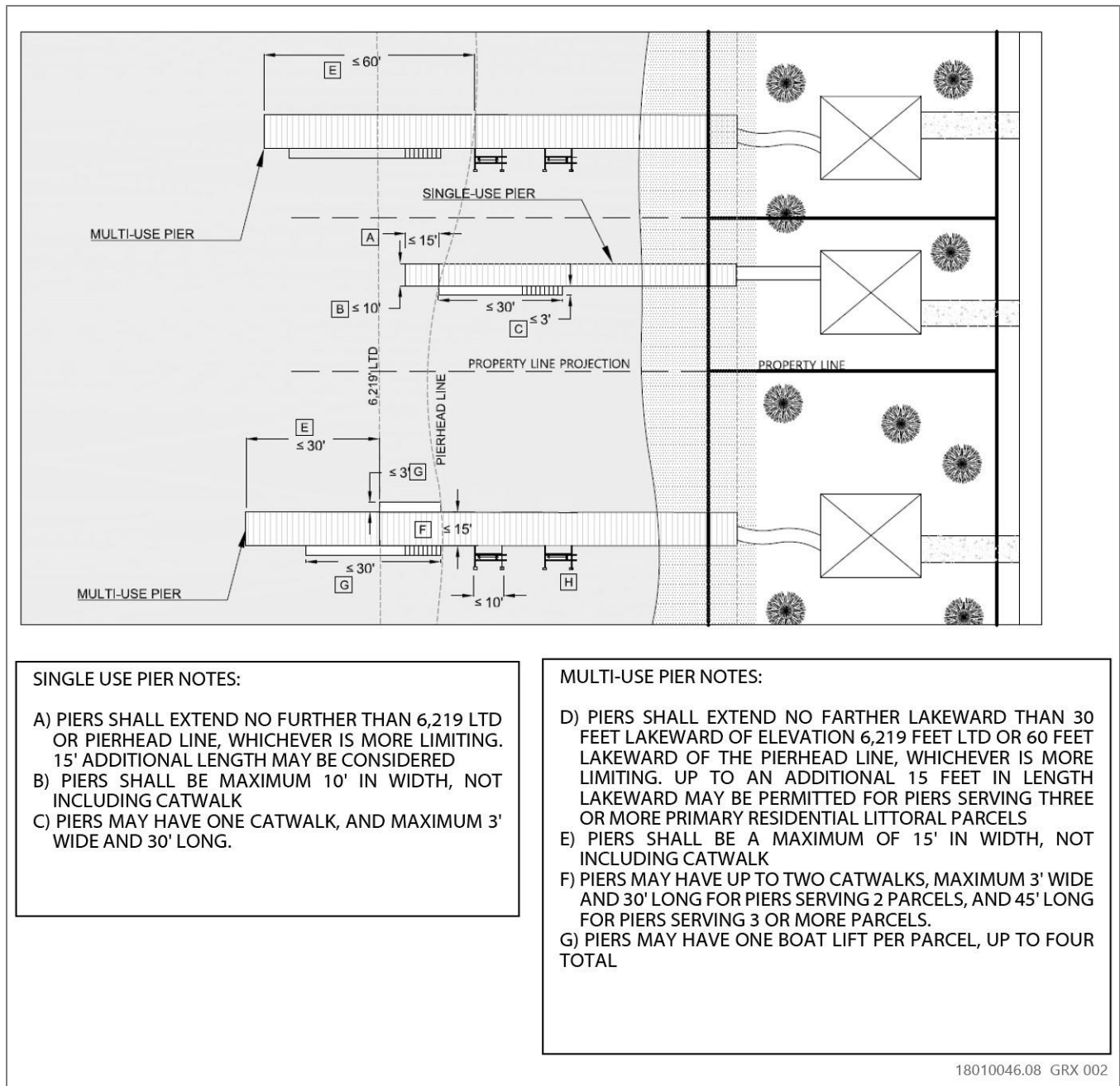
⁴ Flexibility in the design of the pierhead is allowed for multiple-use piers to accommodate multiple simultaneous users. The pierhead design must be included in the visible mass calculation.

Source: compiled by Ascent Environmental in 2017



Source: TRPA 2012

Figure 2-4 Pier Location Standards



Source: TRPA 2012

Figure 2-5 Single- and Multiple-Use Pier Design Standards

PIER EXPANSIONS AND MODIFICATIONS

Pier expansions and pier modifications could use the proposed program to obtain the necessary coverage required for expansion of an existing pier. Existing piers that conform to location and design standards could be expanded under the Shoreline Plan, to the extent allowed for new piers. Pier relocations and reconstruction would also comply with applicable TRPA Code, including location and design standards.

Existing piers that do not conform to the location and design standards could not be expanded unless they result in scenic improvements consistent with the specific requirements described in TRPA Code Section 84.4.3.F.4. Existing piers that do not conform to location and design standards could be modified if the modification results in a material

environmental benefit, brings the structure into greater compliance with location and design standards, and does not increase the degree of nonconformance with any location and design standard.

2.5.2 Construction Approach

Construction activities for piers that could use the proposed program would be reviewed and approved, as required, under TRPA Code, Lahontan RWQCB requirements, and National Pollutant Discharge Elimination System (NPDES) permits, which would include preparation and implementation of a Stormwater Pollution Prevention Plan. TRPA Standard Conditions of Approval for Shorezone Projects include standards such as temporary BMPs, equipment idling times, erosion control requirements, winterization standards, vegetation protection requirements, and air quality and noise best practices.

PIER CONSTRUCTION TECHNIQUES

Piers may use various construction approaches and may be constructed by a floating or amphibious barge during the winter season (October to May). The type of barge to be used would depend on the water level in the lake at the time of construction. During high water, a floating barge can be used; however, during low water years, the amphibious barge would be needed to access the portions of a pier nearest to the beach. Amphibious barges can be driven out of the lake to refuel equipment. For floating barges, fuel must be transferred in containers for refueling on the lake. All barges would carry a 40- to 65-gallon spill containment kit (Ragan, pers. comm., 2017).

Turbidity curtains could be used during pile installation to minimize water quality impacts from suspended sediment. Piles could be installed by either pile driving or drilling. If drilling were to be required for pile installation a caisson would be used to isolate the drilling site and protect water quality. A turbidity curtain is a floating barrier consisting of relatively impervious fabric, used to prevent fine and coarse suspended sediment transport away from areas of water-based construction activities, in this case the driving of the pier piles. Similarly, a caisson is a watertight retaining structure used to isolate the work area during pier construction. With a caisson, the water can be pumped out to create a dry environment. Piles in Lake Tahoe are typically driven 6-8 feet into the lake bottom (Ragan, pers. comm., 2017). Bubble curtains would also be used to reduce impacts on fish if required by CDFW permitting. Construction staging areas would be necessary to store construction equipment and materials.

2.6 PERMITS AND AGENCY APPROVALS

Following completion of the environmental review process, Conservancy staff may recommend that the Conservancy Board review the IS/ND, adopt the ND, and authorize the program. Land bank transactions that receive coverage and/or restoration credits may be required to obtain the following permits and approvals:

- ▶ TRPA would review pier permit applications and issue permits for those land bank transactions that are consistent with the Shoreline Plan (i.e., shorezone regulations in the TRPA Code and the Shoreline Implementation Program) and collect mitigation fees.
- ▶ California State Lands Commission (CSLC) would approve of a lease for activities involving the State's sovereign lands in Lake Tahoe below 6,223 feet. CSLC reviews pier permit applications jointly with TRPA to confirm that it would meet all design requirements and maintain legal, lateral public access through the shorezone.
- ▶ The U.S. Army Corps of Engineers would issue a Section 404 permit.
- ▶ CDFW may issue Lake and Streambed Alteration Agreement (LSAA)
- ▶ Lahontan RWQCB may issue a NPDES permit

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3 ENVIRONMENTAL CHECKLIST AND PROPOSED NEGATIVE DECLARATION

PROGRAM INFORMATION

1. Program Title: Land Bank Pier Program
2. Lead Agency Name and Address: California Tahoe Conservancy, 1061 Third Street, South Lake Tahoe, CA 96150
3. Contact Person and Phone Number: Jessica Wackenhut, Staff Services Manager, (530) 542-5580
4. Program Location: California side of the Lake Tahoe Basin, Placer and El Dorado Counties
5. Program Sponsor's Name and Address: California Tahoe Conservancy (address same as above)
6. General Plan Designation: Varies
7. Zoning: Varies
8. Description of Program: Refer to Chapter 2, "Program Description"
9. Surrounding Land Uses and Setting: Refer to Chapter 2, "Program Description"
10. Other public agencies whose approval is required: (e.g., permits, financing approval, or participation agreement) Refer to Section 2.5, "Permits and Agency Approvals"
11. Have California Native American tribes traditionally and culturally affiliated with the program area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

The Conservancy sent Assembly Bill (AB) 52 consultation letters to the Torres Martinez Desert Cahuila Indians, the United Auburn Indian Community of the Auburn Rancheria, and the Washoe Tribe of Nevada and California on July 16, 2021. The Conservancy received a response from the Torres Martinez Desert Cahuila Indians; they deferred consultation to the Washoe Tribe of Nevada and California. No other responses were received, and AB 52 consultation is complete.

Prior to AB 52 outreach, the Conservancy had a conversation with Susan Jamerson of the Washoe Tribe on July 13, 2021 to provide an overview of the development rights and coverage system in Lake Tahoe and the Conservancy Land Bank. Conservancy staff provided the scope of work for the CEQA document related to coverage and/or restoration in the backshore associated with piers and other related access structures. Ms. Jamerson shared that it is highly unlikely that the tribe will provide comments on the proposed program since the scope of this document is very narrow.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this proposed program, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages. Where noted below with a "Y" for yes, the topic with a potentially significant impact will be addressed in an environmental impact report.

- Aesthetics
- Agriculture and Forest Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology / Soils
- Greenhouse Gas Emissions
- Hazards / Hazardous Materials
- Hydrology / Water Quality
- Land Use / Planning
- Mineral Resources
- Noise
- Population / Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities / Service Systems
- Wildfire
- Mandatory Findings of Significance
- None
- None with Mitigation Incorporated

DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- Yes I find that the proposed program could not have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- No I find that although the proposed program **COULD** have a significant effect on the environment, there **WILL NOT** be a significant effect in this case because revisions in the program have been made by or agreed to by the applicant. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- No I find that the proposed program **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- No I find that the proposed program **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
- No I find that although the proposed program could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR or NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR or NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed program, nothing further is required.

Signature _____

Date _____

Printed Name _____

Title _____

Agency _____

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
4. “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analyses,” as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

3.1 AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics.				
Except as provided in Public Resources Code section 21099 (where aesthetic impacts shall not be considered significant for qualifying residential, mixed-use residential, and employment centers), would the proposed program:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the program is in an urbanized area, would the program conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.1.1 Setting

Within the program area, portions of State Route (SR) 89 in Placer County and US 50 in El Dorado County are officially designated as State Scenic Highways. The proposed program area contains several travel routes and natural scenic features that are formally designated by TRPA as part of the Scenic Threshold Standards. The travel route threshold ratings track long-term, cumulative changes to two types of views: those seen from major roadways in the Region within urban, transitional, and natural landscapes (Roadway Travel Units); and those seen from Lake Tahoe looking landward (Shoreline Travel Units).

Travel route ratings are used to assess the visual experience of traveling the Lake Tahoe Basin’s major roads, including all state and federal highways. These roadways are separated into segments called travel units, each of which represents a continuous, two-directional viewshed of similar visual character. Travel route ratings consist of a numeric composite score that represents the relative scenic quality throughout the entire travel unit. Roadway travel unit ratings reflect six components: man-made features, physical distractions to driving along roadways, roadway characteristics, view of the Lake from the roadways, general landscape views from the roadways, and the variety of scenery from the roadways. Each component is rated from 1 (has a strong negative effect on scenic quality) to 5 (has a strong positive effect on scenic quality). A composite rating is obtained by summing the ratings of the six individual components. To be considered “in attainment” with the threshold standard, the current composite rating of each roadway travel unit must be at least 15.5 and equal to or greater than the original 1982 score. Shoreline travel units reach attainment at a score of 7.5 or higher and exceeds the original scenic score from 1982. Shoreline units are rated from 1 (has a strong negative effect on scenic quality) to 5 (has a strong positive effect on scenic quality) on three

components: man-made features, background views, and variety of scenery from the shoreline travel unit. Numerical ratings are assigned for each characteristic every four years by a team of qualified scenic quality experts.

The program area contains a total of 24 Shoreline Travel Units, including Units 1 through 21, and Units 31 through 33. Since the latest threshold evaluation in 2019, the threshold attainment statuses of all except one unit have remained the same. Shoreline Travel Unit #18, Cedar Flats, came into attainment status as a result of the 2019 Threshold Evaluation. The attainment status of all Roadway Travel Units remained the same from the 2015 to the 2019 Threshold Evaluation (TRPA 2021a).

3.1.2 Discussion

a) Have a substantial adverse effect on a scenic vista?

Less-than-significant impact. Impacts related to aesthetics and scenic resources under the proposed program are consistent with those analyzed in the 2018 Shoreline Plan EIS, and therefore the analysis is tiered from and consistent with the 2018 Shoreline EIS. Impacts pertaining to scenic vistas are discussed in Chapter 9, "Scenic Resources" of the 2018 Shoreline Plan EIS (TRPA 2018b: 9-1 to 9-69).

The proposed program would transfer restoration credits and/or land coverage to allow for the construction of new piers, relocation/reconstruction of piers, modifications to existing piers and moorings, construction of structures that provide access to new or existing piers, and other access structures in the shorezone. The proposed program would not modify laws or regulations pertaining to scenic resources in the program area. Each land bank transaction would be required to comply with TRPA Code of Ordinances Chapter 66, "Scenic Quality," 36, "Design Standards," and Chapters 80-85, which comprise the TRPA Shorezone Code.

The TRPA Shorezone Code limits construction of piers and supporting structures in areas with high sensitivity to visual quality degradation, limits potential sources of light and glare, and requires design elements such as color, material, and visible mass requirements to reduce the impacts of new pier construction. Density requirements limit construction of shorezone structures in areas with higher sensitivity of scenic degradation.

The 2018 Shoreline Plan Draft EIS identified two potentially significant impacts to scenic vistas such as designated Shoreline Travel Units and Roadway Travel Units. Impact 9-1 addressed potential impacts of the Shoreline Plan, including pier construction, on views of the shoreline from Lake Tahoe. Impact 9-2 addressed impacts of the Shoreline Plan activities, including pier construction, on views of Lake Tahoe from the shoreline. These impacts were determined to be less than significant with incorporation of mitigation measures (TRPA 2018b: 9-19 to 9-69). Mitigation measures 9-1a through 9-1c were proposed to reduce the above impacts to a less than significant level. Mitigation Measure 9-1a and 9-1c are not relevant to this proposed program because they addressed visual impacts of buoys, which are not affected by this program, and they addressed a Shoreline Plan alternative that was not selected or approved. Mitigation Measure 9-1b required that TRPA establish color standards for piers that would reduce visual impacts (TRPA 2018b: 9-51 through 9-56).

Mitigation measures prescribed in the 2018 Shoreline Plan EIS to reduce impacts to the visual environment around the lakeshore (i.e., Mitigation Measures 9-1a and 9-1b) have been incorporated into TRPA's Regional Plan and Code of Ordinances. Mitigation Measure 9-1b was incorporated into the TRPA Shorezone Code (Chapter 84.4.3.A.5, Pier Color.) The mitigation measure would apply to land bank transactions consistent with the Shoreline Plan and the proposed program. Therefore, because the proposed program would be required to comply with existing regulations that reduce impacts of future land bank transactions on scenic resources and on the visual quality and character of the shorezone, activities resulting from implementation of the proposed program such as construction of piers and related walkways, stairs, and pilings would result in a less-than-significant impact.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less-than-significant impact. Impacts related to aesthetics and scenic resources under the proposed program are consistent with those analyzed in the 2018 Shoreline Plan EIS, and therefore the analysis is tiered from and consistent with the 2018 Shoreline EIS.

SRs 89 and 50 are designated State Scenic Highways within the program area. However, the proposed program does not propose physical changes that would adversely affect scenic resources such as trees, outcroppings or historic buildings in proximity to scenic highways. Furthermore, individual land bank transactions would be evaluated by TRPA to verify that they comply with TRPA Code requirements that protect individual scenic formations such as trees, historical buildings, or rock outcroppings. Existing development standards in the TRPA Code do not permit development activities that would substantially damage designated scenic resources.

The Shoreline Plan EIS evaluated the effects of the Shoreline Plan, including pier construction, on views from roadways in the region in Impact 9-2 (TRPA 2018b: 9-53 through 9-69). The analysis found that under the Shoreline Plan “[n]ew 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.” (TRPA 2018b: 9-58). Because the proposed program would result in land bank transactions consistent with the Shoreline Plan, it would result in a less-than-significant impact for the reasons described in Impact 9-2 of the Shoreline Plan EIS.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the program is in an urbanized area, would the program conflict with applicable zoning and other regulations governing scenic quality?

Less-than-significant impact. See discussion under item a) above.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less-than-significant impact. Impacts related to aesthetics and scenic resources under the proposed program are consistent with those analyzed in the 2018 Shoreline Plan EIS, and therefore the analysis is tiered from and consistent with the 2018 Shoreline EIS. Impacts pertaining to scenic vistas were discussed in Chapter 9, “Scenic Resources” of the 2018 Shoreline Plan EIS.

Development under the Shoreline Plan was determined not to produce new sources of light or glare. According to existing regulations and design standards in the TRPA Code, piers and boat ramps are prohibited from having lighting, except for limited cases where public safety lighting is required. Use of reflective materials is prohibited in construction of shorezone structures (TRPA 2018b: 9-1).

Construction of supporting structures such as walkways, steps, and pilings in the backshore area resulting from the proposed program may require use of minimal temporary lighting to comply with safety standards. However, compliance with existing requirements in the TRPA Code would ensure that impacts pertaining to light and glare would remain less than significant.

3.2 AGRICULTURE AND FOREST RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>II. Agriculture and Forest Resources.</p> <p>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.</p> <p>In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the proposed program:</p>				
<p>a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>b) Conflict with existing zoning for agricultural use or a Williamson Act contract?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>d) Result in the loss of forest land or conversion of forest land to non-forest use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.2.1 Setting

According to the Farmland Mapping and Monitoring Program, the program area is not surveyed for important farmland. No agricultural land uses occur within the shorezone and agricultural land uses are not permitted within the shorezone. No land under Williamson Act contracts exists within the program area.

Timberland or areas zoned for timber production are not present around the shorezone or within the program area in either El Dorado County (El Dorado County 2012), or Placer County (Placer County 2013). Areas designated as forest resources are present near the shorezone in both El Dorado and Placer Counties. The program area and lake shore include or are adjacent to notable areas of forest resources including El Dorado National Forest, Ed Z'berg Sугarpine Point State Park, and Emerald Bay State Park, and other regions managed by the U.S. Forest Service.

3.2.2 Discussion

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No impact. The program area is not surveyed for presence of Important Farmland. No agricultural uses currently occur or are permitted to occur within the shorezone. The proposed program would transfer restoration credits and/or coverage to allow for the construction of new piers, relocation/reconstruction of piers, modifications to existing piers and moorings, construction of structures that provide access to new or existing piers, and other access structures in the shorezone, which would not affect farmland. Therefore, the proposed program would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance into non-agricultural uses and no impact would occur.

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

No impact. No Williamson Act contracts are present within the program area. Therefore, the proposed program would not conflict with lands under Williamson Act contracts and there would be no impact in this regard.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No impact. No areas zoned for timber resources are located within the shorezone or the program area. Therefore, the proposed program could not conflict with areas zoned for timber resources and no impact would occur.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No impact. Impacts related to agriculture and forest resources under the proposed program are consistent with those analyzed in the 2018 Shoreline Plan EIS, and therefore the analysis is tiered from and consistent with the 2018 Shoreline EIS. Agriculture and Forest Resources were discussed in Chapter 18, "Other TRPA-Mandated Sections" of the 2018 Shoreline Plan EIS (TRPA 2018b: 18-2).

The proposed program would transfer restoration credits and/or coverage from the Conservancy's land bank to allow for the construction of new piers, relocation/reconstruction of piers, modifications to existing piers and moorings, construction of structures that provide access to new or existing piers, and other access structures in the shorezone in accordance with existing design standards in the TRPA Code. The proposed program would not modify laws or regulations pertaining to forest resources in the program area and would be consistent with activities examined under the 2018 Shoreline Plan EIS.

The 2018 Shoreline Plan EIS concluded that implementation the Shoreline Plan would not result in significant impacts to forest land or forest resources (TRPA 2018b: 18-2). Future activities under the Shoreline Plan were determined to

have no impact to old growth forest ecosystems. The Shoreline Plan and the proposed program may result in tree removal required for the construction of new facilities in the shoreline, however, tree removal would be infrequent and minor. For these reasons, forest resources were not further addressed in the 2018 Shoreline Plan EIS. Any tree removal would be subject to TRPA Code including Chapters 33.6 "Vegetation Removal During Construction," and "61.1 Vegetation and Forest Health-Tree Removal."

The proposed program may result in tree removal necessary to construct new structures in the shorezone, however, it would not substantially impact forest resources or result in conversion of designated forest land to incompatible uses. Therefore, the proposed program would have no impact in this regard.

e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No impact. Impacts related to agriculture and forest resources under the proposed program are consistent with those analyzed in the 2018 Shoreline Plan EIS, and therefore the analysis is tiered from and consistent with the 2018 Shoreline EIS. The proposed program would not modify laws or regulations pertaining to agriculture or forestry resources within the program area. As discussed in section c) and d) above, the program area is not surveyed for presence of Important Farmland and agricultural uses are not present within the program area. The program area is near notable areas of forest resources. However, the 2018 Shoreline Plan EIS determined that future pier related construction activities occurring under the Shoreline Plan would only require tree removal for construction activities in the shorezone, which would be limited, and would be subject to existing regulations pertaining to removal of vegetation required for construction activities and therefore would not result in conversion of forest land to non-forest uses. Therefore, the proposed program would not result in conversion of agriculture or forest resources to non-forest or agriculture uses and no impact would occur.

3.3 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>III. Air Quality.</p> <p>Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations.</p> <p>Are significance criteria established by the applicable air district available to rely on for significance determinations? Would the proposed program:</p>				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the program region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.3.1 Setting

Ambient concentrations of air pollutants are determined by the amount of pollutants emitted in an area, and the atmosphere’s ability to transport and dilute those emissions. Natural factors influence transportation and dilution including terrain, wind, atmospheric stability, and sunlight. The Lake Tahoe Air Basin (LTAB) is a geographic unit demarcated by similar regional meteorological and geographic conditions. The LTAB comprises portions of El Dorado and Placer Counties on the California side and Washoe County, Douglas County, and the Carson City Rural District on the Nevada side, which together also compose the study area for air quality impacts from the proposed program. The air quality standards listed in Table 10-1 in the Shoreline Plan EIS generally apply to the LTAB as a unit.

As described in Section 10.3.2, “Existing Air Quality,” in Chapter 10 of the Shoreline Plan EIS, concentrations of criteria air pollutants are used to indicate ambient air quality. The California Air Resources Board (CARB), the Placer County Air Pollution Control District (PCAPCD), and the El Dorado County Air Quality Management District (EDCAQMD) operate a regional monitoring network that measures the ambient concentrations of the six criteria air pollutants within the LTAB. These monitoring stations measure maximum daily concentrations and the number of days during which California Ambient Air Quality Standards (CAAQS) or National Ambient Air Quality Standards (NAAQS) for a given pollutant were exceeded. The measurements are available on CARB’s website.

Both the Environmental Protection Agency (EPA) and CARB use ambient air quality monitoring data to designate the attainment status of an area relative to the NAAQS and CAAQS for each criteria air pollutant. The purpose of these designations is to identify those areas with air quality problems and thereby initiate planning efforts for improvement.

EPA has designated the LTAB in attainment of the NAAQS for all the criteria air pollutants (EPA 2018a, 2018b). However, EPA designated the California portion of the LTAB as a maintenance area with respect to the NAAQS for

carbon monoxide (CO). The applicable federal air quality maintenance plan for the LTAB is California's State Implementation Plan (SIP) for Carbon Monoxide (CO Maintenance Plan), originally adopted in 1996 and revised in 2004 (CARB 2004). Part of the maintenance strategy involves allocation of transportation emissions budgets to the maintenance areas, which are tracked by the Tahoe Metropolitan Planning Organization.

The LTAB is designated as nonattainment with respect to TRPA's 8-hour average ozone threshold standard and TRPA's 24-hour average PM₁₀ threshold standard (TRPA 2016:3-8 and 3-9).

CARB has designated the LTAB as nonattainment with respect to the CAAQS for ozone and PM₁₀ and as attainment or "unclassified" with respect to the CAAQS for all other criteria air pollutants (CARB 2017a). "Unclassified" is used in an area that cannot be classified based on available information as meeting or not meeting the standards.

Existing sources of toxic air contaminants (TACs) in the LTAB include diesel-fueled vehicles traveling on major roadways such as U.S. Highway 50 and SR 89 as well as recreational watercraft. Other sources of TACs include seasonal operation of diesel-powered snow management equipment, such as plows and snow makers, during the winter season. Naturally occurring asbestos is also recognized by CARB as a TAC. Asbestos is the common name for a group of naturally occurring fibrous silicate minerals that can separate into thin but strong and durable fibers. According to two reports by the California Department of Conservation Division of Mines and Geology—*Relative Likelihood for the Presence of Naturally Occurring Asbestos in Placer County, California* and *A General Location Guide to Ultramafic Rocks in California—Areas More Likely to Contain Naturally Occurring Asbestos* (Van Gosen and Clinkenbeard 2011; Higgins and Clinkenbeard 2006:54; Churchill and Hill 2000), the Tahoe Basin is not likely to contain naturally occurring asbestos.

3.3.2 Discussion

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less-than-significant impact. Impacts related to air pollution emissions under the proposed program are the same as, although less than, those analyzed in the 2018 Shoreline Plan EIS, and therefore the analysis is tiered from and consistent with the 2018 Shoreline EIS. The proposed program would not modify laws or regulations pertaining to air quality and would be required to comply with Chapter 65 of the TRPA Code. Chapter 65 includes provisions that apply to direct sources of air pollution in the Tahoe Region, including certain motor vehicles registered in the region, combustion heaters installed in the region, open burning, stationary sources of air pollution, and idling combustion engines. Implementation of the proposed program would involve development of structures in the backshore that have the potential to produce air pollutant emissions that could contribute to nonattainment during construction and operation, as discussed below.

The proposed program would result in the construction and reconstruction of piers and other access structures using various equipment, including a floating or amphibious barge and a pile driver or large drill for pile installation. These activities would generate temporary equipment exhaust and may create fugitive dust emissions from vehicle and equipment use on land that could violate or contribute substantially to an existing or projected air quality violation and/or expose sensitive receptors to substantial pollutant concentrations, especially considering the nonattainment status of the LTAB with respect to the CAAQS and numeric TRPA threshold standards for ozone and PM₁₀. There would not be an increase in long-term operational emissions associated with the proposed program because there would be no increase in recreational boating and associated new roadway vehicle trips; therefore, operational emissions are not discussed further.

Because local jurisdictions have their own regulations pertaining to construction emissions, construction activities that would occur under the proposed program would also be required to comply with the applicable local rules. For land bank transactions in Placer and El Dorado Counties, construction equipment exhaust emissions may not exceed PCAPCD Rule 202 or EDCAQMD Rule 202. Operators of vehicles and equipment that exceed opacity limits must be immediately notified, and the equipment must be repaired within 72 hours. The construction of piers would also be required to comply with all other applicable PCAPCD or EDCAQMD rules, as appropriate, including PCAPCD Rule 228

and EDCAQMD Rule 223, regarding fugitive dust; and PCAPCD Rule 218 and EDCAQMD Rule 215, regarding the application of architectural coatings.

The 2018 Shoreline Plan EIS concluded that given the limited construction season in the Tahoe Region (i.e., May 1 to October 15) and the number of new facilities that could be developed under the Shoreline Plan, it is possible that a substantial amount of construction activity could occur at one time. Thus, equipment exhaust and fugitive dust emissions could violate or contribute substantially to an existing or projected air quality violation and conflict with or obstruct the applicable air quality plan, especially considering the nonattainment status of the LTAB with respect to the CAAQS and TRPA numeric threshold standards for ozone and PM₁₀. To address this impact, the Shoreline Plan EIS prescribed Mitigation Measure 10-2, which required additional construction best practices to reduce equipment exhaust and fugitive dust. The Shoreline Plan EIS determined that, with implementation of Mitigation Measure 10-2, construction emissions associated with the Shoreline Plan would be less than significant (TRPA 2018b: 10-22).

Mitigation measures identified in the 2018 Shoreline Plan EIS to reduce construction-generated emissions (i.e., mitigation measure 10-2) have been incorporated into TRPA's Standard Conditions of Approval for Shorezone Projects, including the following:

- ▶ Fugitive dust shall not exceed 40 percent opacity and not go beyond the property boundary at any time during construction.
- ▶ No open burning of removed vegetation shall occur during infrastructure improvements.
- ▶ Idling time for all diesel-powered equipment shall not exceed 5 minutes.
- ▶ Water shall be applied as needed to prevent dust impacts from extending off-site. Operational water truck(s) shall be on-site, as required, to control fugitive dust. Construction vehicles leaving the site shall be cleaned to prevent dust, silt, mud, and dirt from being released or tracked off-site.
- ▶ Existing power sources or clean-fuel generators rather than temporary diesel power generators shall be used wherever feasible.

The proposed program would be required to adhere to these Standard Conditions of Approval for Shorezone Projects, and it would result in far fewer emissions than the overall Shoreline Plan. Therefore, the proposed program would not generate substantial air pollutant emissions such that they could violate or contribute substantially to an existing, or projected air quality violation, conflict with or obstruct the applicable air quality plan, and/or expose sensitive receptors to substantial pollutant concentrations. Therefore, this impact would be less than significant.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the program region is non-attainment under an applicable federal or state ambient air quality standard?

Less-than-significant impact. See the analyses for question a), above, which concludes that the proposed program would not result in substantial air pollution emissions, including those for which the program region is in non-attainment. Because the proposed program would not result in substantial pollution emissions, it would not result in the cumulatively considerable net increase of any criteria pollutant for which the program region is in non-attainment. Therefore, this impact would be less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less-than-significant impact. See the analyses for question a), above, which concludes that the proposed program would not result in substantial air pollution emissions or expose sensitive receptors to substantial pollutant concentrations. Therefore, this impact would be less than significant.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less-than-significant impact. The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of sensitive receptors. Although offensive odors rarely cause physical harm, they can be unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies.

Consistent with the 2018 Shoreline Plan EIS, the proposed program would not result in any new major sources commonly known to produce odors (e.g., landfills, wastewater treatment facilities) and it would not result in the development of new sensitive receptors. Diesel exhaust from the use of heavy-duty off-road equipment during the construction of new facilities would be intermittent and temporary and would dissipate rapidly from the source with an increase in distance. Thus, implementation of program would not create objectionable odors affecting a substantial number of people. As a result, this impact would be less than significant.

3.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. Biological Resources.				
Would the proposed program:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.4.1 Setting

TERRESTRIAL BIOLOGICAL SETTING

As described in Chapter 14, "Terrestrial Biological Resources (Wildlife and Vegetation)," of the 2018 Shoreline Plan EIS, natural terrestrial habitats within the shorezone consist primarily of beach (with variable composition of sand, gravel, and cobble, depending on location) and a mix of conifer forest (Jeffrey pine, lodgepole pine, Sierran mixed conifer), scattered conifer trees and snags, and patches of montane riparian and wet meadow vegetation. Additionally,

urban/developed and ruderal (disturbed) areas are distributed throughout the shorezone where existing facilities (e.g., boat ramps, marinas, buildings, trails) and lake access are present.

A preliminary list of special-status plant and animal species known or with potential to occur in the Shoreline Plan area was developed for the 2018 Shoreline Plan EIS. The data review identified 49 and 39 special-status terrestrial plant and wildlife species, respectively, known or with potential to occur in the shorezone or vicinity. Three special-status wildlife species (osprey, bald eagle, waterfowl) and one special-status plant species (Tahoe yellow cress [*Rorippa subumbellata*]) are known to occur in the shorezone. These species are the focus of the impact analysis for special-status species and are described in more detail below. Other special-status terrestrial species could use or occur in portions of the shorezone area but are not expected to be affected considerably by the proposed program.

Osprey

Osprey is designated by TRPA as a special interest species. In the Lake Tahoe Basin, osprey nests are distributed primarily along the northern portion of the east shore and the southern portion of the west shore of Lake Tahoe. Ospreys forage in Lake Tahoe as well as several other fish-bearing lakes, streams, and rivers within the Lake Tahoe Basin. The osprey population in the Lake Tahoe Basin has increased over the last several years. For example, between 1997 and 2015, the number of active nests increased steadily from 12 to 31 (TRPA 2016). TRPA maintains a nondegradation standard for habitat within a 0.25-mile buffer zone ("disturbance zone") around each osprey nest site.

Bald Eagle

Bald Eagle is designated by TRPA as a special interest species. Bald eagle is also federally protected by the U.S. Fish and Wildlife Service (USFWS) under the Bald and Golden Eagle Protection Act. Over the past several years, bald eagles have nested consistently in two areas of the Lake Tahoe Basin—Marlette Lake and Emerald Bay. More recently, a third bald eagle nest site was documented at Sugar Pine Point along the west shore; this nest was active in 2013, 2014, and 2015 (TRPA data). The Lake Tahoe Basin is also a wintering area for bald eagles, and the wintering population is considerably greater than during the breeding season.

Waterfowl

"Waterfowl" is designated by TRPA as a special-interest group of species because its nesting habitat in the Lake Tahoe Basin is limited. Several waterfowl species occur in the Lake Tahoe Basin during spring and summer months, including Canada goose (*Branta canadensis*), mallard (*Anas platyrhynchos*), green-winged teal (*A. crecca*), common merganser (*Mergus merganser*), ruddy duck (*Oxyura jamaicensis*), northern pintail (*A. acuta*), northern shoveler (*A. clypeata*), cinnamon teal (*A. cyanoptera*), American widgeon (*A. americana*), gadwall (*A. strepera*), ring-necked duck (*Aythya collaris*), and others. In the Lake Tahoe Basin, wetlands provide nesting, resting, and foraging habitat for waterfowl. Important areas for waterfowl in the vicinity of the program area include Pope Marsh, Truckee Marsh, and Taylor Creek Marsh (TRPA 2016). Existing TRPA regulations prevent new projects from directly degrading wetland and riparian habitats, including mapped waterfowl population sites (Code of Ordinances Section 62.3.3).

Tahoe Yellow Cress

Tahoe yellow cress (TYC) occurs only on the sandy beaches of Lake Tahoe. This species is designated as a sensitive plant and threshold indicator species by TRPA and is state listed as critically endangered. The distribution and abundance of TYC are closely linked to lake level, with greater abundance and more occurrences present during low lake levels when more beach habitat is available for colonization (Pavlik et al. 2002, Stanton et al. 2015). The species exhibits a metapopulation dynamic, where populations or clusters of plants at some locations may periodically disappear or decline in number in some years (e.g., in high water years), and TYC may recover or colonize exposed suitable habitats during other periods (Pavlik et al. 2002). The timing and probability of these dynamic extirpation and colonization events depend primarily on lake level and disturbances from recreation or development, but also on the biophysical characteristics of the sites themselves. The primary anthropogenic disturbances to this species are recreational use of beaches occupied by TYC and potentially development of piers, which could result in trampling and degradation or loss of habitat.

In response to low numbers of TYC occurrences in the late-1990s, a multiagency technical advisory group (TAG) was formed to develop and implement a conservation strategy for the species. The Tahoe Yellow Cress Conservation Strategy was completed in 2002 (Pavlik et al. 2002) and updated in 2015 (Stanton et al. 2015), and a memorandum of understanding and conservation agreement were signed by 13 state and local agencies and stakeholders to implement the strategy. In 2002, the TAG initiated a research program that has included seed collection, greenhouse propagation, experimental outplantings of container-grown TYC plants, translocation of naturally occurring TYC among sites, and some limited genetic analysis. In 2005, members of the TAG transitioned to being members of an adaptive management working group (AMWG). A central goal of the Conservation Strategy is to ensure a sufficient level of protection and conservation for the species that will preclude the need for USFWS to list TYC under the federal endangered species act (ESA).

AQUATIC BIOLOGICAL SETTING

As described in Chapter 5, “Fish and Aquatic Biological Resources,” of the 2018 Shoreline Plan EIS, the Shoreline Plan, including the proposed program, has the potential to affect fish and aquatic biological resources in Lake Tahoe. In the mid-1800s Lake Tahoe supported eight fish taxa. As a result of introductions and extirpations, Lake Tahoe currently supports a total of 20 native and introduced fish species. The shallow water, near-shore (i.e., less than approximately 33 feet deep), assemblage of fish comprises six species: Lahontan speckled dace (*Rhinichthys osculus robustus*), Lahontan redband shiner (*Richardsonius egregious*), Paiute sculpin (*Cottus beldingi*), Tahoe sucker (*Catostomus tahoensis*), rainbow trout (*Oncorhynchus mykiss*), and brown trout (*Salmo trutta*) (Moyle 2002). However, many other young-of-the-year (YOY) fish are also found in shallow waters throughout the year. In the midwater zone of the lake, kokanee, *pectinifer* tui chub, and rainbow trout dominate the assemblage (Moyle 2002). The deep-water assemblage is comprised of lake trout, Paiute sculpin, *obesa* tui chub, Tahoe sucker, and mountain whitefish (*Prosopium williamsoni*). Although they inhabit the midwater and deep-water areas of the lake for the majority of the year, several species generally ascend tributary streams to spawn, including kokanee, rainbow trout, brown trout, and brook trout (*Salvelinus fontinalis*). Of the fish species known to occur in Lake Tahoe, three are considered to be special-status fish species and are described in more detail below.

Lahontan Cutthroat Trout

Lahontan Cutthroat Trout (LCT) is an inland subspecies endemic to the physiographic Lahontan basin in northern Nevada, eastern California, and southern Oregon. Once widespread throughout the Lake Tahoe Basin, LCT was the top predator in Lake Tahoe’s aquatic ecosystem (TRPA 2016). However, the species now occupies a fraction of its historical habitat. LCT occur in 10.7 percent of their historic stream habitat and 0.4 percent of their historic lake habitat (USFWS 2014). In 1970, LCT were listed as endangered under the federal ESA, but in 1975, the listing was downgraded to threatened to allow for more flexible management.

LCT are open water fish and typically remain in the pelagic (open water) zone of lakes. Like other cutthroat trout, LCT is a stream spawner which spawns between February and July (USFWS 2014). LCT typically return to the same stream from where they hatched and spawn in gravel riffles. Although each fish may spawn up to five times, most females spawn only once or twice (Moyle 2002).

Mountain Whitefish

Once one of the historically most abundant fish in the eastern Sierra, the Lake Tahoe mountain whitefish population is now a fraction of its historic numbers (Caltrout 2017). Large numbers were harvested by Native Americans and then commercial harvesting further affected the population. By the 1950s, populations were low in Lake Tahoe (Moyle 2002) and today, predation pressures from invasive trout and bass further threaten the population (Caltrout 2017).

Mountain whitefish move into small tributaries to spawn from October through early December at water temperatures under 11°C. Spawning generally takes place in riffles in depths greater than 2 feet where substrates are primarily coarse gravel, cobble and rocks. However, some spawning may take place in gravel in shallow water areas of Lake Tahoe (Caltrout 2017). As adults, mountain whitefish generally live close to the bottom in fairly deep water

and swim around in schools of 5–20 fish (Moyle 2002). They also remain closely associated with beds of aquatic plants and seldom move into areas devoid of aquatic vegetation (Moyle 2002).

Lahontan Lake Tui Chub

Lake Tahoe's Lahontan Lake tui chub population is declining. It is thought that the numerous physical and chemical changes related to the introduction of excess nutrients, sediments and pollutants entering the lake from surrounding developments, water diversions, wastewater treatment, and wetlands destruction have adversely affected the Lake Tahoe tui chub population. The introduction of kokanee and *Mysis* also have depleted zooplankton populations, an important food source to the chubs (Moyle 2002). Largemouth bass (*Micropterus salmoides*) also have contributed to the tui chub decline by preying on juveniles in nearshore rearing areas (Moyle 2002). The Lahontan Lake tui chub is a California Species of Special Concern because of the uncertain, but potentially declining status of the Lake Tahoe population (UC Davis 2017).

Lake Tahoe supports two subspecies of the Lahontan Lake tui chub; the pelagic form (*pectinifer*) that schools well off the bottom and the benthic form (*obesa*) that utilizes bottom waters (Moyle 2002). The benthic population feeds primarily on benthic invertebrates, whereas the pelagic population relies on zooplankton and small terrestrial insects (Moyle 2002). Tui chub spawning occurs at night, primarily in May and June, but can continue until the end of July (Moyle 2002; UC Davis 2017). Lake Tahoe tui chubs spawn in nearshore shallow waters (i.e., less than 5 feet deep) over sandy bottoms or in the mouths of streams (Moyle 2002; UC Davis 2017). YOY chubs of both subspecies remain in shallow water throughout the summer (Moyle 2002) then migrate into deeper waters offshore in the winter (UC Davis 2017).

3.4.2 Discussion

- a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?**

Less-than-significant impact. The effects of the proposed program on special status species are the same as, but less than, the effects evaluated in the Shoreline Plan EIS. Therefore, this analysis is tiered from and consistent with the analysis in the Shoreline Plan EIS. The Shoreline Plan EIS evaluated the effects of complete build out of the Shoreline Plan, including activities that could occur under the proposed program. The analysis of effects on terrestrial special status species is include in Chapter 14, "Terrestrial Biological Resources (Wildlife and Vegetation)" (TRPA 2018b: 14-16 through 14-25), and the analysis of effects on aquatic special status species is included in Chapter 5, "Fish and Aquatic Biological Resources" (TRPA 2018b: 5-28 through 5-51). The Shoreline Plan EIS determined that these effects would be less than significant after the implementation of mitigation measures. The recommended mitigation measures have been adopted into the TRPA Code and standard permit conditions. TRPA Code and standard permit conditions would be mandatory requirements enforced by TRPA for the construction or reconstruction of any pier and/or associated structure under the proposed program. The proposed program would have less potential to impact special-status species than the Shoreline Plan. In addition, the Shoreline Plan EIS determined that the Shoreline Plan would result in a less than significant impact with required mitigation, and the required mitigation has been adopted by TRPA as a mandatory condition of approval.

There is one special-status plant and six special-status animal species that could be negatively impacted by the proposed program, either directly or through habitat modifications as a result of pier construction. A summary of the analysis in the Shoreline Plan EIS is provided below.

Tahoe Yellow Cress

As described in the 2018 Shoreline Plan EIS, construction-related activities (including site preparation and equipment access) that may occur within or adjacent to beach habitat occupied by TYC could result in the direct removal of TYC plants, or other disturbances through inadvertent trampling, soil disturbance, and dust deposition. Over the long

term, the additional recreation capacity for swimmers and beachgoers could increase the frequency of recreationists within occupied TYC habitat, which could result in trampling, degradation, or loss of existing TYC, and adversely affect current or future TYC habitat suitability.

Subsection 61.3.6 of the TRPA Code states that “all projects or activities that are likely to harm, destroy, or otherwise jeopardize sensitive plants or their habitat, shall fully mitigate their significant adverse effects. Those projects or activities that cannot fully mitigate their significant adverse effects are prohibited.” Additionally, in California, TYC is listed as endangered under CESA; and any take of TYC would require authorization by CDFW through a California Fish and Game Code Section 2081 incidental take permit. Nonetheless, the 2018 Shoreline Plan EIS concluded that any potential loss of TYC plants as a result of project implementation would be a significant impact. To address this impact, the Shoreline Plan EIS prescribed Mitigation Measure 14-2, which requires preconstruction surveys and avoidance of TYC during construction, as well as long-term protection measures such as fencing, signage, and ongoing monitoring of recreational impacts. The Shoreline Plan EIS determined that, with implementation of Mitigation Measure 14-2, potential impacts to TYC associated with the Shoreline Plan implementation would be less than significant (TRPA 2018b: 14-25).

The mitigation measure identified in the 2018 Shoreline Plan EIS to reduce impacts to TYC (i.e., Mitigation Measure 14-2) has been incorporated into TRPA Code Sections 80.4.8 and 82.5.1J. It would be required and enforced by TRPA for all applicable land bank transactions under the proposed program. Requirements include the following:

- ▶ During project-specific planning, design, and environmental review of new shorezone facilities, avoid siting projects within areas known to support TYC occurrences, to the extent feasible.
- ▶ For any projects that could affect TYC, a qualified biologist familiar with the vegetation of the Lake Tahoe Basin and identification of TYC shall conduct a focused preconstruction survey for TYC in all beach habitat where construction-related disturbance could occur in the vicinity of TYC populations during that year. Surveys shall be conducted between June 15 and September 30, when TYC is clearly identifiable, and shall follow Survey Protocols for Tahoe Yellow Cress Annual Surveys (Stanton and Pavlik 2009). Surveys shall be completed for each year that construction activities could occur in beach habitat. If no TYC stems are found during the survey, the results of the survey shall be documented in a letter report to TRPA and the TYC AMWG that shall become part of the project environmental record, and no further actions shall be required.
- ▶ If TYC stems are documented during the survey in areas potentially disturbed by construction activities, the stems shall be clearly identified in the field and protected from impacts associated with construction activities. Protective measures shall include installing high-visibility fencing around known stem locations during construction. No construction-related activities shall be allowed in areas fenced for avoidance, and construction personnel shall be briefed about the presence of the stems and the need to avoid effects on the stems.
- ▶ To protect TYC plants from potential long-term increased beach use and disturbance as an indirect result of increased recreation activity in the shorezone, protective fencing, and educational signage about the need to avoid these areas shall be installed around all TYC clusters. In addition to beaches occupied by TYC where new shorezone facilities would be constructed and operated, other beach areas that support TYC that are likely to receive increased recreation uses as a result of the projects shall be identified and subject to these measures.
- ▶ Long-term fencing and signage will be periodically monitored and maintained, as necessary, to ensure that they remain effective and in good working condition. Also, because locations and concentrations of TYC could shift over time, the locations and configurations of fencing relative to TYC distribution shall be evaluated periodically. If necessary, fencing shall be moved or added in response to changes in TYC distribution to ensure that TYC plants are protected over time. The locations of TYC plants and shifts in their locations relative to fencing can be determined by surveys as part of the ongoing AMWG TYC monitoring program. The installation and maintenance of long-term protective fencing and signage will be designed to not interfere with necessary operations and maintenance activities at facilities.

Therefore, because land bank transactions under the proposed program would be required to implement measures to avoid and minimize short term and long-term impacts to TYC, and the proposed program has less potential to negatively affect TYC than the overall Shoreline Plan because fewer new facilities would be developed around Lake Tahoe, this impact would be less than significant.

Special Status Terrestrial Animals

The Shoreline Plan EIS concluded that potential disturbance to osprey and bald eagle nest sites and disturbance zones, and disturbance or loss waterfowl nests would be a significant impact. To address this impact, the Shoreline Plan EIS prescribed Mitigation Measure 14-1a and 14-1b, which require avoidance measures to minimize disturbances to nesting osprey and bald eagle; preconstruction surveys and a limited operating period (LOP) for waterfowl; as well as long-term protection measures such as installing interpretive signage and developing habitat enhancement plans for unavoidable activities within TRPA-designated disturbance zones. The 2018 Shoreline Plan EIS determined that, with implementation of Mitigation Measure 14-1a and 14-1b, potential impacts to osprey, bald eagle, and waterfowl nest sites and disturbance zones associated with the Shoreline Plan implementation would be less than significant (TRPA 2018b: 14-21 to 14-23).

Mitigation measures identified in the 2018 Shoreline Plan EIS to reduce impacts to special status terrestrial wildlife (i.e., Mitigation Measures 14-1a and 14-1b) have been incorporated into TRPA's Standard Conditions of Approval for Shorezone Projects. These would be mandatory requirements for all applicable land bank transactions under the proposed program. The conditions include the following:

- ▶ Surveys for nesting osprey and bald eagle will be conducted prior to construction of new shorezone facilities, to identify active nests that could be disturbed during construction. No construction activities will occur within 0.25 mile of active osprey nests and 0.5 mile of bald eagle nests during the breeding season (approximately April to August), unless surveys confirm that the birds are not nesting. A qualified biologist can amend the start and end dates of this LOP with concurrence from appropriate agencies if it can be determined that breeding has not started or that fledglings have left the nest. Additionally, with concurrence from appropriate agencies, the LOP could be waived in locations where construction disturbance is not expected to increase ambient levels or disturbance to an active nest through presence of visual screening or other factors.
- ▶ During project-specific planning, design, and environmental review of new shorezone facilities, avoid siting projects within TRPA-designated disturbance zones for osprey and bald eagle, to the extent feasible.
- ▶ For projects and uses that may result in unavoidable increased human intrusion into the terrestrial/upland portions of TRPA osprey or bald eagle disturbance zones, signage that describes the sensitivity of the area and discourages users to leave established trails or access routes or otherwise disturb nesting osprey or bald eagle will be designed and installed.
- ▶ For projects that could cause unavoidable long-term degradation of habitat within TRPA osprey or bald eagle disturbance zones, coordination with TRPA will occur to identify and implement appropriate compensatory measures that are effective and feasible for achieving TRPA's nondegradation standard for disturbance zones.
- ▶ For construction activities that would occur in suitable habitat for waterfowl during the nesting season ((generally April 1–August 31), depending on snowpack and other seasonal conditions), a qualified wildlife biologist shall conduct focused surveys for waterfowl nests no more than 14 days before construction activities are initiated. If an active nest is located during the preconstruction surveys, the biologist shall notify TRPA. If necessary, modifications to the project design to avoid removal of occupied habitat while still achieving project objectives shall be evaluated and implemented to the extent feasible. If avoidance is not feasible or conflicts with project objectives, a limited operating period shall apply to avoid disturbances during the sensitive nesting season. In this case, construction shall be prohibited within a minimum of 500 feet (or at a distance directed by the appropriate regulatory agency) of the nest to avoid disturbance until the nest is no longer active. These recommended buffer areas may be reduced through consultation with TRPA.

Because the proposed program would be required to implement the measures listed above that avoid and minimize short term and long-term impacts to special status terrestrial wildlife, and the program has less potential to negatively affect special-status wildlife than the overall Shoreline Plan because fewer new facilities would be developed around Lake Tahoe, this impact would be less than significant.

Special-Status Aquatic Species

All aquatic species evaluated could be susceptible to construction-related impacts under the proposed program, except lake trout, which are not found in the nearshore. However, based on life history characteristics, habitat use for the species evaluated, resource protection provisions associated with the Shoreline Plan, required avoidance and minimization measures implemented for the protection of fish and aquatic biological resources, significant adverse impacts would not be expected to occur to any of the lake's fish populations or prime habitat. Moreover, construction activities associated with placement of piers would be required to implement resource protection provisions and to adhere to the provisions of the Standard Conditions of Approval for Shorezone Projects and the *TRPA Best Management Practices Handbook*, including (TRPA 2018b: 5-31):

- ▶ implement pier design standards, to limit the size of piers and corresponding construction footprint;
- ▶ maintain stream mouth protection zones and establish shoreline preservation areas to help minimize disturbance in migration and rearing habitat;
- ▶ require use of turbidity curtains and caissons during pier pile installation; and
- ▶ require barges to carry a spill containment kit to minimize impacts associated with accidental chemical spills.

Permanent habitat modification could affect all species evaluated except lake trout because they do not utilize nearshore habitats. Impacts on species that could use nearshore habitats would be greatest on native nongame fish, including Lahontan Lake tui chub. Impacts on special-status salmonids, including LCT and mountain whitefish, as well as other cold water game fish species, would generally be limited to YOY juveniles using nearshore areas for rearing. Under the Shoreline Plan, impacts resulting from permanent habitat modification would be small relative to TRPA-designated fish habitat, including prime fish habitat. Additionally, based on the life history characteristics and habitat use for the species evaluated, impacts would be minimal for any fish species.

Therefore, potential impacts to special status aquatic species and prime fish habitat resulting from implementation of the proposed program would be less than significant.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

Less-than-significant impact. The proposed program involves the construction of piers in the shorezone of Lake Tahoe where very little vegetation is present and no substantial impacts to prime fish habitat or other habitat in the project area would occur (see discussion under a) above). Natural communities within the shorezone consist primarily of beach (with variable composition of sand, gravel, and cobble, depending on location) and a mix of conifer forest (Jeffrey pine, lodgepole pine, Sierran mixed conifer), scattered conifer trees and snags. Additionally, urban/developed and ruderal (disturbed) areas are distributed throughout the shorezone where existing facilities (e.g., boat ramps, marinas, buildings, trails) and lake access are present. Construction-related activities (including site preparation and equipment access) could result in the disturbance or removal of terrestrial vegetation, including some conifer and other trees, shrubs (e.g., willow), and herbaceous vegetation. Because the footprints of new piers would likely cover mostly unvegetated areas (beach/sand), disturbance or permanent loss of vegetation would be minor and incidental; and any temporarily disturbed areas would be restored following construction. TRPA's Handbook of BMPs and Standard Conditions of Approval require minimizing the disturbance footprint and amount of native vegetation removed by a project, temporarily fencing retained vegetation, and revegetating any temporarily disturbed areas (TRPA 2018b: 14-26).

While vegetation could be permanently and/or temporarily removed or disturbed during construction and reconstruction of piers and other structures in the backshore, the potential loss would be relatively minor for reasons discussed previously. In addition, new piers and associated land coverage are prohibited in the most sensitive natural communities (Stream Mouth Protection Area, and Shoreline Tolerance Districts 1). In addition, land bank transactions would require the implementation of Standard Conditions of Approval for Shorezone Projects, TRPA's Shoreline Implementation Program, and BMPs from the *TRPA Best Management Practices Handbook*, all of which would avoid and minimize potential impacts to riparian habitat or other sensitive natural communities if present within a program area. For these reasons, and as explained in the Shoreline Plan EIS (TRPA 2018b: 14-26 through 14-29), this impact would be less than significant.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less-than-significant impact. New piers and associated land coverage are prohibited in state or federally protected wetlands adjacent to the shoreline, which are characterized as Shorezone Tolerance District 1 in the TRPA Code (Code Section 83.7). Thus, the proposed program would have no direct effect on state or federally protected wetlands.

As described in the 2018 Shoreline Plan EIS, Lake Tahoe is considered waters of the United States under Section 404 of the Clean Water Act (CWA). Construction of piers could adversely affect water quality in the shorezone by accelerating soil erosion and sedimentation, increasing turbidity, and releasing pollutants. Use of heavy equipment in and adjacent to the water's edge could produce dust and temporarily disturb and resuspend lake sediments in the water column, thus increasing turbidity in the immediate vicinity of the construction site. Additionally, operating heavy equipment such as pile drivers and their associated barges could cause sediment plumes during in-water construction. Construction equipment operating in the nearshore zone can also destroy native aquatic plants and disrupt the natural layering of sand and surface armor, which contributes to turbidity.

TRPA's Standard Conditions of Approval for Shorezone Projects would be implemented prior to and during construction in the shorezone, including placement of erosion control devices and sediment barriers. For example, turbidity curtains may be used during pile driving and other lakebed disturbing activities. A turbidity curtain is a floating barrier consisting of relatively impervious fabric, used to prevent the transport of fine and coarse suspended sediment away from areas of water-based construction activities. Additionally, depending on site-specific conditions, use of caissons (i.e., watertight retaining structures that isolate piers during construction) during pier construction may be warranted. These retaining structures would allow water to be removed from the pile installation location, allowing pile installation to occur in the dry during pier construction. Other BMPs for shorezone construction that would be applicable to the proposed project include (TRPA 2018b:6-16, 6-17):

- ▶ checking turbidity curtains frequently and repairing or replacing them, if necessary,
- ▶ for periods of high wind and wave action, ceasing construction activities causing degraded water quality within the curtained area until weather conditions improve,
- ▶ defining limits on the extents of turbid waters permitted to escape the dredging area or co-mingle with the nearshore water of Lake Tahoe (typically 20 NTU),
- ▶ providing oil booms on-site for use in cleanup in case of spills, and
- ▶ providing training to construction personnel for response procedures to address spills.

Because the proposed program would not directly affect wetlands, and because implementation of BMPs, including TRPA's standard conditions, applicable state, federal, and TRPA regulations including obtaining a Section 404/401 permit, would avoid or minimize indirect affects, this impact would be less than significant.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less-than-significant impact. As discussed under question a, above, the proposed program would not result in substantial impacts to prime fish habitat or substantially interfere with fish spawning or nesting birds with the implementation of Standard Conditions of Approval for Shorezone Structures, TRPA's Shoreline Implementation Program, and BMPs from the *TRPA Best Management Practices Handbook*. In addition, new piers constructed under the proposed program would not interfere substantially with the movement of any native resident or migratory fish or wildlife species because piers primarily extend over water such that terrestrial wildlife can continue to use the land around a pier and fish can continue to swim in the area under a pier. No new structures are permitted in stream mouth protection zones, nor would piers and associated structures impair access to, or along, streams. Therefore, the program would not interfere substantially with the movement of any species or impede the use of native wildlife nursery sites and this impact would be less than significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No impact. All land bank transactions under the proposed program would be required to comply with the Shorezone Code as well as TRPA's Code of Ordinances. TRPA Code Chapters 80–85 comprise the TRPA Shorezone Code. Furthermore, construction activities for piers and associated structures would be reviewed and approved, as required, under TRPA Code, Lahontan RWQCB requirements, NPDES permits, and CDFW LSAA requirements, as applicable. The proposed program would comply with all applicable policies and ordinances aimed at protection biological resources and no conflicts would occur; therefore, there would be no impact.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No impact. There are no adopted habitat conservation plans (HCP) or natural community conservation plans (NCCP) that include the project area. Therefore, the proposed program would not conflict with the provisions of an HCP or NCCP and there would be no impact.

3.5 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. Cultural Resources.				
Would the proposed program:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially disturb human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.5.1 Setting

The prehistory and ethnography of the project area are described in detail in Chapter 16, "Cultural Resources," of the 2018 Shoreline Plan EIS, which includes summaries of the historic use of Lake Tahoe by the Washoe people. The discussion below focuses on known historic and archaeological resources in the project area.

Federal, state, and regional regulatory agencies maintain inventories of historic and archaeological resources in the Lake Tahoe Basin. The National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR) are comprehensive inventories of cultural resources. Additionally, the Lake Tahoe Basin Management Unit, TRPA, and the California State Historic Preservation Officer (SHPO) keep inventories of cultural resources. The California Historical Resources Information System includes the State Historic Resources Inventory as defined in California Public Resources Code § 5020.1(p), and a large number of resource records and research reports managed by the nine Information Centers located throughout the State.

Regionally, TRPA maintains a Historic Resources Map that identifies TRPA-designated historic sites and GIS layers of known historic resources determined eligible. Designated historic and cultural resources appearing on the Historic Resources Map were first recognized by TRPA and the USDA Forest Service for significance in 1971 and approved by the TRPA Governing Board for designation in 1984. Since that time, resources are evaluated and identified as part of a project or activity that could potentially cause an adverse impact to a cultural resource greater than 50 years of age. Resources determined eligible as historic or culturally significant are included in TRPA historic resource GIS layers. Currently, TRPA recognizes 112 sites of historical significance. These sites are categorized by two physical types: linear features and nonlinear features. Linear features account for 33 of the recognized sites and nonlinear features account for 79 of the sites.

These sites are also categorized as either historical or archaeological sites. All of the linear features are categorized as historic features. The nonlinear features are comprised of 55 historic features, 20 archaeological features, and four features that are listed as both an historic and archaeological feature.

In addition to linear and nonlinear features documented by TRPA, there are many small sites around the Lake where a variety of artifacts have been discovered. Evidence of human settlements appears throughout the area. Artifacts discovered at various sites include flaked basalt implements and milling stones, slabs for the grinding of seed foods, chert and obsidian toolstone, bedrock mortars, and smaller projectile points. Because historic and archaeological resources are site-specific, these resources are inventoried on a case-by-case basis for individual projects within the Region.

3.5.2 Discussion

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Less-than-significant impact. This potential effect is the same as analyzed in the 2018 Shoreline Plan EIS, and therefore this analysis tiers from and is consistent with the 2018 Shoreline Plan EIS. The 2018 Shoreline Plan EIS evaluated the effects on historic resources from build-out of the entire Shoreline Plan, including the proposed program (TRPA 2018b: 16-11 to 16-13). The demolition, alteration, or disturbance of existing sites, buildings, and structures that are designated historic resources, eligible for listing as historic resources, or that have not yet been evaluated, could result in the change in its historical significance. Specifically, implementation of the Shoreline Plan would result in development on properties that could contain known or unknown historic resources, are associated with historically-significant events or individuals, or result in adverse physical or aesthetic effects to a significant historical site, structure, object, or building. To address this impact, the Shoreline Plan EIS prescribed Mitigation Measure 16-1, which requires measures to avoid, move, record, or otherwise treat a discovered resource appropriately, in accordance with pertinent laws and regulations. The Shoreline Plan EIS determined that, with implementation of Mitigation Measure 16-1, potential impacts to historical resources would be less than significant (TRPA 2018b: 16-13).

The measure identified in the 2018 Shoreline Plan EIS to reduce impacts to historical resources (i.e., Mitigation Measure 16-1) has been incorporated into TRPA Policy (i.e., TRPA Policy C-1.1). Accordingly, land bank transactions would be required to implement the following measure:

- ▶ Once the exact location of the new piers has been determined and before commencement of earth-disturbing activities for construction, applicants shall identify and evaluate all historic-age (over 45-years in age) buildings and structures that are proposed to be removed and/or modified as part of a historic determination application with TRPA or applicable local jurisdiction. This may include preparation of an historic resource assessment and evaluation of resources to determine their eligibility for recognition under state, federal, or local criteria. If required, the assessment shall be prepared by an architectural historian, or historical architect meeting the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation, Professional Qualification Standards. If resources are eligible for inclusion in the NRHP, CRHR, or a local register are identified, an assessment of impacts on these resources shall be included in the report, as well as detailed mitigation measures to avoid impacts.

Because all historic-age buildings and structures would be evaluated prior to disturbance and measures would be implemented to avoid impacts, this impact would be less than significant.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less-than-significant impact. This potential effect is the same as analyzed in the 2018 Shoreline Plan EIS, and therefore, this analysis tiers from and is consistent with the 2018 Shoreline Plan EIS. The 2018 Shoreline Plan EIS evaluated the effects on archaeological resources from build-out of the entire Shoreline Plan, including the proposed program (TRPA 2018b: 16-13 to 16-14). Implementation of the Shoreline Plan would result in development that could take place on properties that contain, be associated with, or result in adverse effects to known or unknown archaeological resources. Construction associated with the Shoreline Plan could encounter previously undiscovered or unrecorded archaeological sites and materials during project-related preconstruction or construction-related ground-disturbing activities. These activities could damage or destroy these archaeological resources. To address this impact, the Shoreline Plan EIS prescribed Mitigation Measure 16-2, which requires measures to avoid, move, record, or otherwise treat a discovered resource appropriately, in accordance with pertinent laws and regulations. The Shoreline Plan EIS determined that, with implementation of Mitigation Measure 16-1, potential impacts to archaeological resources would be less than significant (TRPA 2018b: 16-14).

The measure identified in the 2018 Shoreline Plan EIS to reduce impacts to historical resources (i.e., Mitigation Measure 16-2) has been incorporated into TRPA Policy (i.e., TRPA Policy C-1.1, TRPA Code Sections 33.3.7, "Discovery of Historic Resources," 33.4.1., "Subsurface Investigations and Reports," and 61.1.6-J "Historic Resource Protection"). Accordingly, land bank transactions would be required to implement the following measures:

- ▶ Once the exact location of the new piers has been determined and before commencement of earth-disturbing activities for construction, applicants shall retain a qualified archaeologist to conduct archaeological surveys of the site as part of a historic determination application with TRPA or applicable local jurisdiction. To ensure that new or expanded facilities and uses do not adversely affect potentially buried archaeological deposits, an underwater archaeological survey shall also be conducted to identify, evaluate, and protect significant submerged cultural resources prior to activities that would disturb the lakebed.
- ▶ The applicant shall follow recommendations identified in the survey, which may include activities such as subsurface testing, designing, and implementing a Worker Environmental Awareness Program, construction monitoring by a qualified archaeologist, avoidance of sites, or preservation in place.
- ▶ All projects shall include the following requirements as a condition of approval: If evidence of any prehistoric or historic-era subsurface archaeological features or deposits are discovered during construction-related earth-moving activities (e.g., ceramic shard, trash scatters, lithic scatters), all ground-disturbing activity in the area of the discovery shall be halted and the appropriate jurisdiction and TRPA shall be notified immediately. A qualified archaeologist shall be retained to assess the significance of the find. If the find is a prehistoric archaeological site, the appropriate Native American group shall be notified. If the archaeologist determines that the find does not meet NRHP or CRHR standards of significance, as applicable, for cultural resources, construction may proceed. If the archaeologist determines that further information is needed to evaluate significance, a data recovery plan shall be prepared. If the find is determined to be significant by the qualified archaeologist (i.e., because the find is determined to constitute either an historical resource or a unique archaeological resource), the archaeologist shall work with the project applicant to avoid disturbance to the resources, and if complete avoidance is not feasible in light of project design, economics, logistics, and other factors, follow accepted professional standards in recording any find including submittal of the recordation forms required by the applicable SHPO and location information to the appropriate information center.

Because archaeological surveys would be conducted prior to disturbance, and measures would avoid, move, record, or otherwise treat a discovered resource appropriately, in accordance with pertinent laws and regulations, this impact would be less than significant.

c) Substantially disturb human remains, including those interred outside of formal cemeteries?

Less-than-significant impact. California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. The procedures for the treatment of Native American human remains are contained in California Health and Safety Code Sections 7050.5 and 7052 and California Public Resources Code Section 5097. These statutes require that, if human remains are discovered, potentially damaging ground-disturbing activities in the area of the remains shall be halted immediately, and the appropriate County coroner shall be notified immediately. If the remains are determined by the coroner to be Native American, the NAHC shall be notified within 24 hours and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. Following the coroner's findings, the NAHC-designated most likely descendant shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments, if present, are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in PRC Section 5097.94. In addition, impact discussion b) above addresses potential impacts to archaeological resources through requiring surveys in areas before ground disturbing construction activities and following recommendations of a qualified archaeologist in the event of a find, which would include previously recorded burial sites. Thus, if any human remains are uncovered during project implementation, measures consistent with California Health and Safety Code Sections 7050.5 and 7052 and California Public Resources Code Section 5097 would be implemented.

Because the proposed program would comply with California Health and Safety Code Sections 7050.5 and 7052 and California Public Resources Code Section 5097, which require the implementation of procedures to avoid and minimize the disturbance of human remains and the appropriate treatment of any remains that are discovered, this impact would be less than significant.

3.6 ENERGY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy.				
Would the proposed program:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.6.1 Environmental Setting

CEQA requires the evaluation of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

3.6.2 Discussion

- a) **Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

Less-than-significant impact. The proposed program would involve the use of a floating or amphibious barge and heavy equipment such as pile drivers to construct and install new piers, respectively. In addition, there would be increased vehicle use during construction as a result of construction crews accessing pier construction sites. The use of energy (i.e., diesel fuel and gasoline) is required to operate these types of vehicles and equipment. However, this use of energy would be temporary, lasting only the duration of pier construction, and no new long-term or operational energy use would occur because private piers could not be used for permanent boat moorage, and would, therefore not affect ongoing boating activity.

This small and temporary increase in energy consumption required to construct piers would not be wasteful or inefficient because implementation of the proposed program would benefit the public by providing piers for public use and recreation. Therefore, no inefficient, wasteful, or unnecessary consumption of energy would occur, and the impact would be less than significant.

- b) **Conflict with or obstruct a state or local plan for renewable energy or energy efficiency**

Less-than-significant impact. See the analyses for question a), above, which concludes that the proposed program would not result in the inefficient, wasteful, or unnecessary consumption of energy. Therefore, the proposed program would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency and this impact would be less than significant.

3.7 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. Geology and Soils.				
Would the proposed program:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.7.1 Setting

Impacts and setting information related to soils and seismic hazards is discussed in Chapter 7 “Soil Conservation,” and Chapter 15, “Public Health and Safety” of the 2018 Shoreline Plan EIS. The proposed program area is in proximity to the Emerald Bay Fault Zone as Identified by a 2016 Alquist-Priolo Fault Zone map. The program area is considered to be seismically active. East of the Lake Tahoe Basin, the Carson Range fault system is one of the largest fault

systems and runs for 60 miles along the east face of the Carson Range from Reno to Markleeville. Three faults in the Lake Tahoe Basin were identified to be active within the last 11,000 years; The Stateline–North Tahoe, Incline Village, and West Tahoe–Dollar Point faults all show evidence for large (2+ m) rupture events within the past 11,000 years (TRPA 2018b: 7-14). The Lake Tahoe Basin is generally considered to have low to moderate potential for shaking caused by seismic activity (TRPA 2018b: 15-12). Nine faults in the Lake Tahoe Basin have been sources of earthquakes with magnitude greater than 6 during the Quaternary period (past 1.6 million years). Other dangers related to seismic activity within the program area could include ground rupture, landslides, avalanches, liquefaction, and seiche waves in the shorezone of Lake Tahoe (TRPA 2018b: 15-13; 7-14 through 7-15).

The 2018 Shoreline Plan EIS found a variety of types of soils with varying potential for erosion within the program area including volcanic soils, granitic soils organic soils, and alluvial deposit soils (TRPA 2018b: 7-12).

3.7.2 Discussion

- a) **Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**
- i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey**

Less-than-significant impact. Effects related to geology and soils under the proposed program are consistent with those analyzed in the 2018 Shoreline Plan EIS, and therefore the analysis is tiered from and consistent with the 2018 Shoreline EIS.

Shaking potential in the Lake Tahoe Basin is generally considered to be low to moderate. The proposed program would permit structures in the shorezone that could be damaged during an earthquake from liquefaction in saturated sand deposits, settlement, tsunami, and seiche. The risk from seismic shaking would be controlled through compliance with the current seismic design requirements of the California Building Standards Code and the International Building Code (TRPA 2018b: 7-22). The 2018 Shoreline plan concluded that the probability of a large seismic event that could trigger seismic related events such as landslides, ground rupture, seiche waves, liquefaction, or ground rupture, is about 2-4% over the next 50 years. Given the low probability of such an event in any given year, and the limited nature of the proposed program in placing structures or people in a seismically active zone, the impact would be less than significant.

- ii) **Strong seismic ground shaking?**

Less-than-significant impact. See discussion under item i) above.

- iii) **Seismic-related ground failure, including liquefaction?**

Less-than-significant impact. See discussion under item i) above.

- iv) **Landslides?**

Less-than-significant impact. See discussion under item i) above.

- b) **Result in substantial soil erosion or the loss of topsoil?**

Less-than-significant impact. Impacts related to geology and soils under the proposed program are consistent with those analyzed in the 2018 Shoreline Plan EIS, and therefore the analysis is tiered from and consistent with the 2018 Shoreline EIS. The Shoreline Plan EIS evaluated effects related to soil erosion in Impact 7-2, Increase erosion or degrade soil conditions during construction activities, and Impact 7-3, Long term increases in shore erosion. The analysis determined that these impacts would be less than significant (TRPA 2018b: 7-18 through 7-21). The potential

for new shorezone facilities to result in erosion would be controlled through existing TRPA regulation and permit conditions (TRPA 2018b: 7-18 through 7-21).

Erosion resulting from the proposed program could arise from vegetation removal and ground disturbance during construction of walkways, stairs, pilings, boat ramps, piers, and pier extensions. Backshore and landside construction activities could include grading, excavation, cut and fill, and trenching, all of which could alter the existing topography or ground surface of individual sites within the backshore. All proposed land bank transactions would be evaluated by TRPA for an individual level and to ensure they conform to existing regulations to minimize erosion and soil instability.

As discussed in Sections 7.2, "Regulatory Setting," and in Impact 6-1 in Chapter 6, "Hydrology and Water Quality," of the 2018 Shoreline Plan EIS, construction projects in the shorezone must meet multiple requirements and regulations of TRPA, Lahontan RWQCB, federal, and local (city and county) agencies, which include coverage restrictions (TRPA Code Chapter 30), implementation of BMPs (TRPA Code Chapter 60), and grading and excavation permits (TRPA Code Chapter 33). As discussed within the 2018 Shoreline Plan EIS, these impacts would be minimized by implementation of existing erosion control regulation and permit. Therefore, this impact of the proposed program would be less than significant.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less-than-significant impact. Effects related to geology and soils under the proposed program are consistent with those analyzed in the 2018 Shoreline Plan EIS, and therefore the analysis is tiered from and consistent with the 2018 Shoreline EIS.

Ground failure such as lateral spreading, subsidence, landslides, or collapse, may result from natural phenomena or may be influenced by human activities. Natural phenomena include subsidence resulting from tectonic deformations and seismically induced settlements; soil subsidence from consolidation, hydrocompaction, or rapid sedimentation; subsidence from oxidation or dewatering of organic rich soils; and subsidence related to subsurface cavities (TRPA 2018: 7-15). Subsidence related to human activity includes subsurface fluid or sediment withdrawal. Lateral spreading is the horizontal movement or spreading of soil toward an open face, such as a streambank, the open side of fill embankments, or the sides of levees. The potential for failure from subsidence and lateral spreading is highest in areas where there is a high groundwater table, where there are relatively soft and recent alluvial deposits, and where creek banks are relatively high. In the shorezone, areas around stream mouths and alluvial deposits in areas of high groundwater could be susceptible to subsidence and lateral spreading (TRPA 2018b: 7-15).

Potential for ground failure resulting from seismic activities is discussed under section a) i), above, and was determined to be less than significant. Human activities that could cause subsidence, such as fluid withdrawal, are not proposed as part of the proposed program. High groundwater tables are present within the program area, especially surrounding creek banks, stream mouths, and places where alluvial deposits are present. Construction is restricted or limited in sensitive riparian areas such as stream mouths or streambanks. The proposed program would not modify existing regulations pertaining to construction in sensitive areas. Therefore, this impact would be less than significant.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code

No impact. Expansive soils are not located within the program area. Therefore, the proposed program would have no impact in this regard.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No impact. The proposed program would transfer restoration credits and/or coverage from the Conservancy's land bank for individual land bank transactions to allow construction and reconstruction of piers and pier-supporting structures such as walkways, steps, and pilings in backshore areas. The proposed program would not generate septic

waste or wastewater. Therefore, the proposed program would not result in or require construction of septic tanks or wastewater disposal systems and no impact would occur.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less-than-significant impact. Paleontological resources include mineralized, partially mineralized, or unmineralized bones and teeth, soft tissues, shells, wood, leaf impressions, footprints, burrows, and microscopic remains that are more than 5,000 years old and occur mainly in Pleistocene or older sedimentary rock units. Although any ground-disturbing activities, such as the installation or pilings for new piers, could affect subsurface resources, the program area has a low likelihood to contain paleontological resources. There is no evidence identifying any sensitivity for paleontological resources in the Lake Tahoe Basin. Surfaces in the Lake Tahoe Basin were created by geologic uplift and have deep granitic bedrock and shallow surface soils. Because the region is not underlain with sedimentary rock formations (which are most likely to contain fossils), it is not likely to contain major paleontological resources. Furthermore, the proposed program would not involve substantial excavation or subsurface disturbance. For these reasons, this impact would be less than significant.

3.8 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. Greenhouse Gas Emissions. Would the proposed program:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.8.1 Environmental Setting

As described in Chapter 11, “Greenhouse Gas Emissions and Climate Change,” in the Shoreline Plan EIS, certain gases in the earth’s atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth’s surface temperature. Solar radiation enters the earth’s atmosphere from space. A portion of the radiation is absorbed by the earth’s surface and a smaller portion of this radiation is reflected toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. The earth has a much lower temperature than the sun; therefore, the earth emits lower frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead “trapped,” resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Human-caused emissions of these GHGs more than natural ambient concentrations are found to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth’s climate, known as global climate change or global warming. It is “extremely likely” that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic forcings (IPCC 2014). The quantity of GHGs in the atmosphere that ultimately result in climate change is not precisely known but is enormous; no single project alone would measurably contribute to an incremental change in the global average temperature, or to global, local, or micro climates. GHG impacts relative to global climate change are inherently cumulative.

GHG emissions are attributable in large part to human activities associated with the transportation, industrial/manufacturing, utility, residential, commercial, and agricultural emissions sectors (CARB 2014). In California, the transportation sector and electricity generation sectors are the largest emitters of GHGs (CARB 2017 b). Emissions of CO₂ are byproducts of fossil fuel combustion. CH₄, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. N₂O is also largely attributable to agricultural practices and soil management. CO₂ sinks, or reservoirs, include vegetation and the ocean, which absorb CO₂ through sequestration and dissolution (CO₂ dissolving into the water), respectively, two of the most common processes for removing CO₂ from the atmosphere.

3.8.2 Discussion

a) **Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

Less-than-significant impact. Impacts related to GHG emissions under the project are the same as, although less than, those analyzed in the 2018 Shoreline Plan EIS, and therefore the analysis is tiered from and consistent with the 2018 Shoreline EIS. The proposed program involves authorizing the sale of coverage and/or restoration credits from the Conservancy land bank for the construction of new piers, relocation/reconstruction of piers, modifications to existing piers and moorings, construction of structures that provide access to new or existing piers, and other access structures in the shorezone on the California side of Lake Tahoe. Construction of piers would involve the use of GHG-emitting off-road construction equipment, GHG-emitting trucks delivering materials and equipment to construction sites, and GHG-emitting commute trips by construction workers. Construction of each pier would result in a one-time increase in GHG emissions. There would not be an increase in long-term operational GHG emissions associated with the proposed program because there would be no increase in recreational boating and associated new roadway vehicle trips; therefore, operational emissions are not discussed further.

The 2018 Shoreline Plan EIS concluded that construction under the Shoreline Plan would result in a one-time increase in GHG emissions, and boating activity at buildout (2040) under the Shoreline Plan is projected to increase approximately 16 percent from existing conditions. It is not feasible to know whether the fleet of boats operating at buildout would be more GHG-efficient than the existing boat fleet because there are no established GHG emission standards for motorized recreational watercraft. Even if some improvement to the GHG efficiency of the future boat fleet is achieved it is not feasible to know whether the magnitude of this improvement would be sufficient to offset the increase in boating activity, the associated on-road mobile-source GHG emissions, and construction-related emissions. Therefore, implementation of the Shoreline Plan has the potential to result in a substantial contribution to GHG emissions. To address this impact, the Shoreline Plan EIS prescribed Mitigation Measure 11-1, which requires that within 12 months of adoption of the Shoreline Plan, TRPA will coordinate the implementation of a GHG Emission Reduction Policy through TRPA-approved plans, project permitting, or projects/programs developed in coordination with local or other governments addressing Best Construction Practices and ongoing operational efficiencies. Until that time, TRPA will continue its existing practice to require measures developed on a project-by-project basis. The policy will require implementation of measures for the reduction of GHG emissions generated by demolition and construction activity in the shorezone and in associated upland areas, by on-road motor vehicles trips directly associated with the operation of boating facilities, and by ongoing operation of recreational watercraft. Where local ordinances already require GHG emission reductions consistent with the policy, no further action is necessary. Where local government ordinances do not adequately address GHG reduction practices, those practices will be implemented through local government and/or TRPA permitting activities or implementation program. The Shoreline Plan EIS determined that, with implementation of Mitigation Measure 11-1, construction emissions would be reduced; however, the effectiveness of these measures would depend on participation rates, available funding, and available technology. Given the uncertainty about the magnitude of the increase in GHG emissions from projects accommodated by the Shoreline Plan and the uncertain effect of these mitigation measures, it is possible that the Shoreline Plan could have a considerable contribution to the cumulative impact of GHG emissions and climate change and the impact was determined to be significant and unavoidable (TRPA 2018b: 11-13).

The proposed program would result in GHG emissions during the construction of piers from vehicle and equipment use (e.g., pile drivers, barge use); however, it would be short-term, intermittent, and would not be expected to result in substantial GHG emissions. Furthermore, specific measures identified in the 2018 Shoreline Plan EIS to reduce construction-generated emissions (i.e., from Mitigation Measure 11-1) have been incorporated into TRPA's Shoreline Implementation Program (TRPA 2018c) and would be applicable to the program, including the following:

- ▶ All diesel-powered construction equipment shall have engines that comply with Tier 4 emission standards or better.
- ▶ Require all construction contractors to use renewable diesel (RD) fuel for all diesel-powered construction equipment (off-road land- and water-based). Any RD product that is considered for use by the construction contractors shall comply with California's Low Carbon Fuel Standards and be certified by the California Air Resources Board Executive Officer. RD fuel must also meet the following criteria:
 - Be hydrogenation-derived (reaction with hydrogen at high temperatures) from 100 percent biomass material (i.e., nonpetroleum sources), such as animal fats and vegetables;
 - Contain no fatty acids or functionalized fatty acid esters; and
 - Have a chemical structure that is identical to petroleum-based diesel which ensures RD will be compatible with all existing diesel engines; it must comply with American Society for Testing and Materials (ASTM) D975 requirements for diesel fuels.
- ▶ Use electric powered equipment instead of fossil fuel-based generators.
- ▶ Purchase mitigation credits from the Climate Action Reserve's GHG Mitigation Credit Program to offset construction-generated GHG emissions.

Therefore, because the proposed program must implement measures to reduce construction period GHG emissions, and the program would result in far fewer emissions than the overall Shoreline Plan, the program would not generate GHGs, either directly or indirectly, that may have a significant impact on the environment. Therefore, this impact would be less than significant.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less-than-significant impact. See the analyses for question a, above, which concludes that the proposed program would implement measures to reduce GHG emissions during construction consistent with TRPA's Shoreline Implementation Program (TRPA 2018c) and would not result in substantial GHGs emissions. Therefore, the program would not conflict with any plan or policy regarding reducing GHG emissions and this impact would be less than significant.

3.9 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. Hazards and Hazardous Materials.				
Would the proposed program:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a program located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the program result in a safety hazard or excessive noise for people residing or working in the program area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.9.1 Setting

HAZARDOUS MATERIALS

Hazards in the region are both human made and naturally occurring. Human-made hazards are associated with the potential risk of accidents from the transport of hazardous materials and waste that occurs during the operation of various commercial and industrial land uses. Household cleaning, construction, dry cleaning, film processing, landscaping, and automotive maintenance and repair land uses are considered generators of hazardous materials and waste. Boat repair and maintenance activities at marinas create wastes that are considered hazardous and require proper handling. Typical wastes associated with boating which are classified as hazardous include: oil, grease,

diesel fuel, and oily bilge water; contaminated soil; gasoline and water; solvents, such as acetone, kerosene, mineral spirits; strong acids and alkalines; and paint chips or leftover paint (TRPA 2018b: 15-11).

Wood treated with chemical preservatives for protection against pests and environmental conditions is called treated wood and is considered hazardous waste. Treated wood may be present in fence posts, sill plates, landscape timbers, pilings, guardrails, and decking. The preservative can include one or more of the following constituents: arsenic, chromium, copper, pentachlorophenol, or creosote. If treated wood waste is not properly disposed of, the chemicals it contains can contaminate surface water and groundwater. This poses a risk to human health and the environment (TRPA 2018b: 15-12).

Two recognized environmental conditions (RECs) whose cleanup status is open have been identified within or immediately adjacent to the shoreline the Tahoe Boat Company UST cleanup site, located at 700 North Lake Boulevard in Tahoe City; and the Sierra Boat Company UST cleanup site, located at 5146 North Lake Boulevard in Carnelian Bay. (TRPA 2018b). Approximately 15 sites with open cases are located within approximately 2 miles of the shore around Lake Tahoe (including in Nevada) as of a July 2021 search of the Geotracker Database maintained by the State Water Resources Control Board (SWRCB 2021).

In addition to human-made hazardous materials, there are numerous naturally occurring hazards in the region. These include radon gas, which is a naturally radioactive gas commonly found in all soil types and often concentrated in granite rock and granite soils.

EMERGENCY RESPONSE AND EVACUATIONS

Under the Emergency Services Act (California Government Code, Sections 8550 through 8551), the State of California developed an emergency response plan to coordinate emergency services provided by federal, state, and local agencies. Rapid response to incidents involving hazardous material or hazardous waste is an important segment of the plan administered by the California Emergency Management Agency (CalEMA). The CalEMA coordinates the response of agencies, including CalEPA, Caltrans, California Highway Patrol, RWQCBs, Air Quality Management Districts, and county disaster response offices.

Emergency access to and across the lake is provided by marinas and boat ramps. The access points are spatially well distributed, (TRPA 2018b: 15-10). Emergency response watercraft is generally located on the water to facilitate easy access.

AIRPORT

One airport is located in proximity to the program area shorezone. The Lake Tahoe airport is located approximately three miles from the shorezone in the City of Lake Tahoe, in El Dorado County.

SCHOOLS

In the southern areas of the program area, no schools were identified within ¼ mile of the shore, however, approximately 6 K-12 schools are located within three miles of the lake shorezone. Along the northern portions of the program area, Tahoe Community Nursery School and Tahoe Lake Elementary School are located within ½ and ¼ miles of the shorezone respectively, east of Tahoe City. The Saint Claire's Tahoe School is located within ¼ mile of the shorezone east of Kings Beach.

3.9.2 Discussion

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less-than-significant impact. Hazards and hazardous materials associated with the proposed program are consistent with those analyzed in the 2018 Shoreline Plan EIS, and therefore the analysis is tiered from and consistent with the 2018 Shoreline EIS. Impacts pertaining to release of hazardous materials are discussed in Chapter 15, "Public Health and Safety," of the 2018 Shoreline Plan EIS (TRPA 2018b: 15-1 to 15-28).

The Shoreline Plan EIS evaluated the routine transport, use, and disposal of hazardous materials under Impact 15-2, accidental release of hazardous substances, which stated that future projects under the shoreline plan would likely result in temporary and long-term increases in use, transport, or disposal of hazardous substances in and out of the Shoreline Plan area (TRPA 2018b: 15-22).

Under the proposed program, temporary increases in use, transport, and disposal would result from construction activities, removal or replacement of older piers that are made with treated wood, and from unanticipated or accidental encounter or disturbance of known hazardous material sites during construction. Materials involved in construction activities would likely include those commonly used at construction sites (such as diesel fuel, lubricants, paints and solvents, and cement products containing strong basic or acidic chemicals). Long-term increase in risk of release and transport of hazardous waste may occur from increased boating access and capacity at different portions of the shore (TRPA 2018b: 15-22). This impact was determined to be less than significant.

The Shoreline Plan determined that compliance with existing regulations, BMPs, and project level permitting requirements would result in a less-than-significant impact. Such requirements include compliance with waste transport regulations described in Section 3.9.1 Environmental Setting, above, compliance with permit conditions and spill prevention plans prepared under SWRCB Construction General Permit to avoid spills and releases of hazardous materials and wastes. Pursuant to 40 CFR 112, a SPCC plan that identifies BMPs for spill and release prevention and provides procedures and responsibilities for safe and effective cleanup of any spills or releases would be established at the project level when site and specific site and construction details can be determined. BMPs would include for example, the designation of special storage areas and labeling, containment berms, coverage from rain, and concrete washout areas. As required pursuant to state and federal law, plans for notification and evacuation of site workers and local residents in the event of a hazardous materials release would be in place throughout construction.

As described above and in the Shoreline Plan EIS (TRPA 2018b: 15-22), compliance with existing regulations and requirements pertaining to hazardous waste materials would result in a less than significant impact.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?

Less-than-significant impact. See Discussion under item a) above.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less-than-significant impact. Impacts related to hazard and hazardous materials under the proposed program are consistent with those analyzed in the 2018 Shoreline Plan EIS, and therefore the analysis is tiered from and consistent with the 2018 Shoreline EIS. Impacts pertaining to release of hazardous materials were discussed in Chapter 15, "Public Health and Safety," of the 2018 Shoreline Plan EIS (TRPA 2018b: 15-1 to 15-28). Two k-12 schools were identified within ¼ mile of the shorezone in the northern part of the lake. Tahoe Lake Elementary School and Saint Claire's Tahoe School are located in Tahoe City and the community of Tahoe Vista, respectively, near the shores around northern Lake Tahoe.

Tahoe Lake Elementary is located along Grove Drive in Tahoe City, approximately 1000 feet from the shore and from the existing Tahoe City Dock and Tahoe City Marina which appear to host permanent and temporary boat docking

for recreational use. The area between the school and the shore is urbanized, and supports commercial retail and office facilities, roadway, park space, and other recreational facilities.

Saint Claire's School is located approximately 600 feet from the shore, and approximately 400 feet from the Tahoe Vista Recreation and Boat Launch on North Lake Boulevard. Land uses in between the shore and the school zone include lodging facilities, restaurants, office buildings, and supporting facilities such as roadway, parking lots, and trees and other vegetation.

Under the proposed program, accidental release of fluid hazardous waste into lake waters would be unlikely to impact either school, which are buffered by additional urban development including park space, commercial buildings, and trees and other vegetation, which populate the quarter mile distance to distance to the shore. Furthermore, construction related transportation of hazardous materials would be limited, temporary, and would be required to comply with existing safety standards, including notification of surrounding communities in the event of a spill or accidental encounter of hazardous materials. The proposed program would not result in operational or permanent use of acutely hazardous materials in substantial amounts, and risk of release to the surrounding environment in proximity to the school would remain less than significant as described in item a) above.

Given that the areas surrounding the location of either school are urbanized areas containing restaurants, commercial office and retail buildings, and recreational facilities, the proposed program would be unlikely to apply to additional development in this area- as the proposed program consists of land coverage and/or restoration credit transfers. Any future shorezone construction occurring under the Shoreline Plan would be consistent with existing land uses (i.e. the Tahoe Vista Recreation Rea Boat Launch and the Tahoe Marina), and would not alter existing conditions near either school zone. Therefore, potential impacts of hazardous waste emissions within ¼ mile of a school remain less than significant.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less-than-significant impact. Impacts related to hazard and hazardous materials under the proposed program are consistent with those analyzed in the 2018 Shoreline Plan EIS, and therefore the analysis is tiered from and consistent with the 2018 Shoreline EIS. Impacts pertaining to release of hazardous materials were discussed in Chapter 15, "Public Health and Safety," of the 2018 Shoreline Plan EIS (TRPA 2018b: 15-1 to 15-28). Sites included on hazardous waste list databases are found in proximity to the shorezone within the program area. As discussed in item a) above, future land bank transactions would be required to comply with existing regulations and requirements. As described in the Shoreline Plan EIS (TRPA 2018b: 15-1 to 15-28), if contaminated material is encountered during construction activities, compliance with existing regulations would result in a less than significant impact.

e) For a program located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the program result in a safety hazard or excessive noise for people residing or working in the program area?

No impact. The program area is not located within an airport land use plan. The nearest airport is the Lake Tahoe Airport, located approximately three miles from the shorezone in the City of Lake Tahoe. Therefore, the proposed program would have no impact in this regard.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less-than-significant impact. Impacts related to hazard and hazardous materials under the proposed program are consistent with those analyzed in the 2018 Shoreline Plan EIS, and therefore the analysis is tiered from and consistent with the 2018 Shoreline EIS. Impacts pertaining to emergency access and evacuation are discussed in Chapter 15, "Public Health and Safety," of the 2018 Shoreline Plan EIS under Impact 15-3, "Shoreline Emergency Access" (TRPA 2018b: 15-24 to 15-28).

Impact 15-3 in the Shoreline Plan EIS states that impacts to emergency services could result from increased numbers of boating accidents resulting from higher boating levels that may require additional emergency response capacity, however the proposed program would not affect boating capacity or associated demand for emergency response. Impact 15-3 also noted that years with low water levels may impede emergency response watercraft. The adopted shoreline plan incorporated low lake level adaptation strategies along with the provisions of TRPA Code Section 84.10.2, which established a framework to provide essential emergency access and egress to Lake Tahoe. Furthermore, TRPA Code Section 84.15.4 allows for temporary structures that extend beyond lake bottom elevation 6,219 feet or the pier headline during low water conditions. Given incorporation of these respective measures, the increase in lake access points, and compliance with applicable federal, state, and local permits, impacts related to shoreline emergency access was determined to be less than significant. The impact of the proposed program would be consistent with, and less than, Impact 15-3 and is therefore less than significant.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

No impact. As described in Chapter 18, "Other TRPA Mandated Sections" of the Shoreline Plan EIS (TRPA 2018b: 18-2) implementation of the Shoreline Plan and proposed program would not result in significant risk pertaining to structural or wildland fires as the shorezone does not include lands designated as high fire hazard severity zones (TRPA 2018b: 18-2). Thus, the proposed program would have no impact in this regard.

3.10 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. Hydrology and Water Quality.				
Would the proposed program:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the program may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:			<input checked="" type="checkbox"/>	
i) Result in substantial on- or off-site erosion or siltation;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to program area inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.10.1 Setting

HYDROLOGY

Lake Tahoe has a water surface area covering nearly two-fifths of the total Lake Tahoe Basin area (191 square miles). Lake Tahoe is fed by 63 tributary streams and intervening zones that drain directly to the lake. The largest tributary is the Upper Truckee River, which accounts for 25 percent of the annual inflow to Lake Tahoe. The Truckee River is the lake’s only outlet, flowing to Pyramid Lake in Nevada. A dam constructed at Tahoe City in the early 1900s regulates

water flow to the Truckee River from the natural rim at 6,223.0 feet above sea level to the maximum legal lake level of 6,229.1 feet (Lake Tahoe Datum). The lake is 12 miles wide and 22 miles long with 72 miles of shoreline.

Regional topography is characterized by steep mountain slopes at higher elevations, transitioning to more moderately sloped terrain near the lakeshore. A notable precipitation gradient exists from the western boundary of the Tahoe Region along the crest of the Sierra Nevada to the eastern boundary at the crest of the Carson Range. The west shore of Lake Tahoe averages about 35 inches per year of precipitation, while the east shore averages about 20 inches per year. Most precipitation in the Tahoe region falls between October and May as snow at higher elevations and as a mixture of snow and rain at lake level. In the higher elevations, peak stream runoff from snowmelt occurs in May or June, while the snowpack near lake level melts a few weeks earlier.

WATER QUALITY

Lake Tahoe is classified by limnologists as an oligotrophic lake, which means the lake has very low concentrations of nutrients that can support algal growth, leading to clear water and high levels of dissolved oxygen (TERC 2011:6.15). The exceptional transparency of Lake Tahoe results from naturally low inputs of nutrients and sediment from the surrounding watersheds. Long-term changes to the transparency and clarity of Lake Tahoe are influenced by the amount of particulate material in the water, which includes inorganic particles that scatter light (e.g., fine sediment suspended in the water column) and organic particles that absorb light (e.g., suspended algae). While the average annual clarity is now better than in preceding decades, it is currently at 62.7 feet, which is still short of the clarity restoration target of 97.4 feet (29.7 m) set by federal and state regulators, a goal that agencies and the Lake Tahoe Basin community continue to work toward (TERC 2020:11.1).

The quality of water in the nearshore area, the primary point of contact for most residents and visitors to the lake, is tracked by measuring turbidity, which is an indication of the cloudiness of water expressed in Nephelometric Turbidity Units (NTU). Higher turbidity measurements indicate cloudier water. TRPA maintains standards for nearshore turbidity, < 3 NTU in areas influenced by stream discharge, and < 1 NTU in areas not influenced by stream discharge. Elevated turbidity measurements in the nearshore area of the lake, defined as levels exceeding 0.25 NTU, appear to be influenced by surface runoff from developed areas. While measures exceeding 0.25 NTU may be higher relative to other areas of the lake, they do not represent exceedance of the standard. Nearshore turbidity monitoring completed between November 2014 and November 2015 did not result in a single value that exceeded the < 1 NTU standard (TRPA 2016). The 2019 Threshold Evaluation did not include updated clarity measurements (Lake Tahoe Info 2021).

Sediment entering streams may come from floodplains, upland slopes, urban runoff, or stream bank erosion. Stream systems influenced by watershed disturbance typically show stream channel degradation and increased bank erosion (LRWQCB and NDEP 2010). Additionally, pollutants such as phosphorus and nitrogen are often attached to sediment particles, further degrading water quality. In 2006, an analysis of sediment loading was completed for all 63 streams that flow into Lake Tahoe (Simon 2006). The streams that contribute the highest volume of suspended sediment are (in descending order) the Upper Truckee River, Blackwood Creek, Trout Creek, Ward Creek, and Third Creek. These five streams, with watersheds making up about 40 percent of the Lake Tahoe Basin, account for almost 50 percent of all fine sediment loading to the lake (Simon 2006).

LAKE TAHOE WATER QUALITY MANAGEMENT PLAN

The TRPA implements the Lake Tahoe Water Quality Management Plan, which is a framework that sets forth the components of the water quality management system in the Lake Tahoe region, the desired water quality outcomes for the Lake Tahoe Basin, and the mechanisms adopted by all the relevant entities to achieve and maintain those outcomes. The Lake Tahoe Water Quality Management Plan was updated in 2013 to better serve as a living and relevant framework within which the distinct but interrelated programs and efforts of the various entities work in a coordinated and complementary fashion.

LAKE TAHOE TOTAL MAXIMUM DAILY LOAD

Section 303(d) of the Clean Water Act requires states to develop lists of water bodies that do not attain water quality objectives after implementation of required levels of treatment by point source dischargers (municipalities and industries). Section 303(d) requires that a state develop a total maximum daily load (TMDL) for each of the listed pollutants. A TMDL is the amount of an identified pollutant that a water body can receive and still comply with water quality objectives. A TMDL is also a plan to reduce loading of a specific pollutant from various sources to achieve compliance with water quality objectives.

The Lake Tahoe TMDL was developed through a partnership between Lahontan RWQCB and the Nevada Division of Environmental Protection to address the declining transparency and clarity of Lake Tahoe. The addition of phosphorus and nitrogen to Lake Tahoe contribute to phytoplankton growth. Because fine sediment particles, phosphorus, and nitrogen are responsible for the decline in lake transparency and clarity, Lake Tahoe is listed under Section 303(d) of the Clean Water Act as impaired by the input of these three pollutants of concern.

3.10.2 Discussion

a) **Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?**

Less-than-significant impact. The 2018 Shoreline Plan EIS evaluated water quality impacts associated with buildout of the entire Shoreline Plan, including construction of new piers that could be facilitated by implementation of the proposed program (TRPA 2018b:6-15 through 6-17). The potential effects of constructing and reconstructing new piers and support facilities (e.g., walkways, steps, pier decking, and pilings in the backshore) on water quality are the same as those included in the analysis in the 2018 Shoreline Plan EIS; therefore, this analysis is tiered from and consistent with the 2018 Shoreline Plan EIS.

The installation of up to 86 new private piers and 10 new public piers would include construction activities in the backshore. Construction activity permitted under the proposed program could adversely affect water quality in the shorezone by accelerating soil erosion and sedimentation, increasing turbidity, and releasing pollutants. Use of heavy equipment in and adjacent to the water's edge could produce dust and temporarily disturb and resuspend lake sediments in the water column, thus increasing turbidity in the immediate vicinity of the construction site. Additionally, operating heavy equipment such as pile drivers and their associated barges could cause sediment plumes during in-water construction. Construction equipment operating in the nearshore zone can also destroy native aquatic plants and disrupt the natural layering of sand and surface armor, which contributes to turbidity.

Compliance with existing state, federal, and TRPA regulations (e.g., Clean Water Act, California Water Code, California Lake Tahoe TMDL, Chapter 33 of the TRPA Code) would reduce potential short-term impacts from construction activities in the shorezone to a less-than-significant level (TRPA 2018b:6-17). Additionally, TRPA's Standard Conditions of Approval for Shorezone Projects would be implemented prior to and during construction in the shorezone, including placement of erosion control devices and sediment barriers. The BMP Handbook (TRPA 2014) details requirements for construction of piers, which includes use of best practical control technology to prevent earthen materials to be resuspended as a result of pier construction and from being transported to adjacent lake waters. An example would be use of a turbidity screen around a construction area during pile driving and other lakebed disturbing activities. A turbidity curtain is a floating barrier consisting of relatively impervious fabric, used to prevent the transport of fine and coarse suspended sediment away from areas of water-based construction activities. Additionally, depending on site-specific conditions, use of caissons (i.e., watertight retaining structures that isolate piers during construction) during pier construction may be warranted. These retaining structures would allow water to be removed from the pile installation location, allowing pile installation to occur in dry conditions during pier construction and reconstruction. Other BMPs for shorezone construction include:

- ▶ checking turbidity curtains frequently and repairing or replacing them if necessary,
- ▶ for periods of high wind and wave action, ceasing construction activities causing degraded water quality within the curtained area until weather conditions improve,
- ▶ providing oil booms on-site for use in cleanup in case of spills, and
- ▶ providing training to construction personnel for response procedures to address spills.

Because implementation of BMPs, including TRPA's standard conditions, would avoid or minimize suspended sediment and turbidity-related impacts near construction areas, and construction associated with the proposed program in the shorezone would be required to conform to all applicable state, federal, and TRPA regulations pertaining to protection of water quality from construction-related discharges, this impact would be less than significant.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the program may impede sustainable groundwater management of the basin?

Less-than-significant impact. The 2018 Shoreline Plan EIS evaluated impacts on groundwater associated with buildout of the entire Shoreline Plan, including construction of new piers that could be facilitated by implementation of the proposed program (TRPA 2018b:7-20). Additionally, the 2018 Shoreline Plan EIS evaluated impacts related to increasing impervious coverage (TRPA 2018b:7-17), which can affect groundwater. The potential effects on groundwater of constructing and reconstructing piers and support facilities (e.g., walkways, steps, pier decking, and pilings in the backshore) are the same as, although at a lesser magnitude than, those included in the analysis in the 2018 Shoreline Plan EIS; therefore, this analysis is tiered from and consistent with the 2018 Shoreline Plan EIS. The proposed program would not use groundwater; thus, the proposed program would not decrease groundwater supplies.

Some shorezone structures could require excavation beyond 5 feet in depth, as in the case of placement of landward pier footings. Groundwater is often shallow in the areas adjacent to a surface water and it is likely that groundwater would be intercepted. Excavation beyond 5 feet in depth would be evaluated on a project level basis. TRPA Code Section 33.3.6 allows excavation deeper than 5 feet in limited circumstances, provided that a soils/hydrologic report has been completed that demonstrates that the excavation would not interfere with or intercept groundwater, no damage occurs to mature trees or SEZ vegetation, excavated material is disposed of properly (as defined in Code Section 33.3.4), and the site's natural topography is maintained. Additionally, pier construction/reconstruction would not use groundwater and would only involve limited subsurface installation of pilings that are approximately 12 - 24 inches in diameter, which would not impede the flow of groundwater.

The proposed program would allow for a total of up to 86 new private piers and 10 new public piers, which would each require new access paths or other structures in the backshore. These structures would create coverage in the backshore (Bailey Land Capability District [LCD] 1b). For buildout of the entire Shoreline Plan, the EIS estimated that the area of new coverage would be 0.3 acres. TRPA Code Section 85.5.4 allows land coverage to provide access to an approved or legally existing structure or use in the nearshore or foreshore provided that the coverage is mitigated through application of BMPs and restoration of LCD 1b lands in the amount of 1.5 times the area of backshore disturbed, also referred to as restoration credit. Further protections are provided for Shorezone Tolerance District 1, which is treated as SEZ for coverage purposes (TRPA Code Section 83.7.2(E)). In Shorezone Tolerance District 1, coverage would only be permitted for planned footpaths which provide access to the shoreline while minimizing environmental impacts. Shorezone Tolerance District 1 includes wetland areas and are treated similar to SEZs. SEZs only constitute a small portion of the total land area in the Lake Tahoe Region but perform many ecosystem services, which includes sediment retention and infiltration and groundwater recharge (TRPA 2018b:7-2). Thus, areas of the shorezone that may provide recharge for groundwater would not be developed under the proposed program such that substantial interference with groundwater recharge would not occur.

For the reasons described above, the proposed program impacts on groundwater supplies and groundwater recharge would be less than significant.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial on- or off-site erosion or siltation;

Less-than-significant impact. As described in question b, above, the proposed program would result in a limited amount of impervious surfaces, which would include walkways, steps, pier decking, pilings, or other access structures in the backshore. This limited amount of impervious surface would be consistent with the TRPA Bailey land capability system and would not substantially alter the drainage pattern of the site of an individual structure such that there would be substantial on- or off-site erosion or siltation (TRPA 2018b: 7-17).

In addition, the compliance with existing regulations, including implementation of construction BMPs described in item "a" above and on pages 6-15 through 6-17 of the Shoreline Plan EIS, would prevent substantial erosion during construction and ground-disturbing activities. Therefore, the potential for the proposed program to result in substantial on- or off-site erosion or siltation would be less than significant.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

No impact. The Shoreline Plan EIS included a brief discussion of potential impacts related to flooding (TRPA 2018b:15-1). The Shoreline Plan area is confined to the shorezone and lake levels are regulated by the dam, flooding hazards are not a concern within the shorezone. The potential effects related to flooding from new piers and support facilities such as walkways, steps, pier decking, pilings, or other access structures in the backshore are the same as those included in the analysis in the 2018 Shoreline Plan EIS. As the Shoreline Plan EIS notes "[a] dam constructed at Tahoe City in the early 1900s regulates water flow to the Truckee River from the natural rim of Lake Tahoe (6,223 feet above sea level) to the maximum legal lake level of 6,229.1 feet. Because the Shoreline Plan area is confined to the shorezone and lake levels are regulated by the dam, flooding hazards are not a concern within the Shorezone." Thus, the proposed program would result in no impact related to flooding.

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

Less-than-significant impact. As discussed under questions b), above, the proposed program would result in a limited increase in impervious surfaces that would not generate a significant increase in runoff. The entire buildout of the Shoreline Plan (including structures in Nevada and structures such as boat ramps that are not part of the proposed program) would result in an estimated 0.3 acres of new land coverage (TRPA 2018b: 7-17). This land coverage would be distributed over numerous separate and widely spaced structures that would avoid the risk of concentrated runoff from large expanses of impervious surface. Additionally, the areas around the support facilities would include sandy beaches that are highly permeable and may include landscaped areas or other generally undeveloped areas that would also be permeable allowing for on-site retention of any runoff. The proposed program would not include the addition of uses that would generate sources of polluted runoff since the piers and support facilities would primarily be used by people walking along these facilities or using them to view the lake. Furthermore, TRPA land coverage regulations for coverage placed in the backshore requires restoration credit from fill removal, land restoration, then the assignment of 1.5 times the amount of Bailey LCD 1b coverage created by the land bank transaction, resulting in a net decrease in land coverage and runoff potential (TRPA 2018b: 7-17). Thus, the proposed program would result in a less-than-significant impact related to stormwater drainage systems and polluted runoff.

iv) Impede or redirect flood flows?

No impact. See the analysis for question c-ii, above, which concludes that the proposed program would result in no impact related to flooding.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to program area inundation?

Less-than-significant impact. The 2018 Shoreline Plan EIS evaluated tsunami and seiche impacts associated with buildout of the entire Shoreline Plan, including construction of new piers that could be facilitated by implementation of the proposed program (TRPA 2018b:7-22 through 7-23). The potential effects on new piers and support facilities (e.g., walkways, steps, pier decking, and pilings in the backshore) from inundation by tsunami or seiche are the same as those included in the analysis in the 2018 Shoreline Plan EIS; therefore, this analysis is tiered from and consistent with the 2018 Shoreline Plan EIS.

Construction and reconstruction activities for private and public piers and associated support structures in the backshore could place hazardous materials used for those activities in the shorezone area, which is at risk of inundation from a lake tsunami or seiche triggered by a large seismic event. A 2006 study by the U.S. Geological Survey found that between 7,000 and 15,000 years ago, a massive landslide in McKinney Bay on the west shore of Lake Tahoe dropped several cubic miles of the West Shore 1,500 feet to the bottom of the lake and likely generated enormous seiche waves (Moore et al. 2006). Scientists at the University of Nevada, Reno, seismological laboratory studied faults beneath Lake Tahoe and estimate the probability of a large event would be approximately 2–4 percent in the next 50 years (Ichinose et al. 2000). Therefore, while several major faults beneath the lake and in the Tahoe region are considered active and capable of producing large magnitude earthquakes that could produce destructive tsunamis and seiches, the probability of such an event in any given year, or in the foreseeable future, is extremely low. Thus, the potential risk of releasing pollutants due to program area inundation would be low. Additionally, the TRPA Standard Conditions of Approval for Shorezone Projects prohibits storage of containers of fuel, paint, or other hazardous materials in the lakezone or shorezone during construction. This impact would be less than significant.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less-than-significant impact. The proposed program does not include activities that would conflict with a water quality control plan or sustainable groundwater management plan. Additionally, as discussed in question a, above, the proposed program would not adversely affect surface or groundwater quality. This impact would be less than significant.

3.11 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. Land Use and Planning.				
Would the proposed program:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.11.1 Setting

Land in the Tahoe region is assigned to one of eight land use classifications by TRPA: wilderness, backcountry, conservation, recreation, resort recreation, residential, mixed-use, and tourist. Within the developed portion of the region (residential, mixed-use, tourist, and resort recreation), most land is zoned for residential uses and is built out with primarily detached single-family residences. Residential development in the Lake Tahoe region is concentrated in established communities around the shoreline of the lake. Mixed-use and tourist-related land uses make up a small portion of the developed areas around the lake and are concentrated along the major transportation routes (U.S. 50 and State Routes 28 and 89), and within established communities around the lake.

The Lake Tahoe Regional Plan and implementing ordinances are required to achieve and maintain thresholds while providing opportunities for orderly growth and development consistent with the thresholds (Public Law 91-551). In accordance with the Tahoe Regional Planning Compact, the Regional Plan was created to achieve the balance, or equilibrium, between the natural environment and the built environment articulated in the TRPA thresholds.

The TRPA Code of Ordinances implements the Goals and Policies of the Regional Plan. They provide enforceable requirements to achieve the stated goals in the Regional Plan and maintain environmental thresholds. Land use planning provisions are included in Chapter 10, "TRPA Regional Plan Maps"; Chapter 11, "Plan Area Statements and Plan Area Maps"; Chapter 12, "Community Plans"; Chapter 13, "Area Plans"; and Chapter 14, "Specific and Master Plans." The TRPA Code also defines eight shorezone tolerance districts for lands adjacent to the Lake Tahoe shoreline. These districts, described in Chapter 83 of the Code of Ordinances, reflect the physical ability of the shoreline to support use and development, with Shorezone Tolerance District 1 being the most sensitive and Tolerance District 8 being the least sensitive. The Shoreline Plan involved amendments to sections of the TRPA Code that address uses and development in the shorezone of Lake Tahoe (TRPA Code Chapters 80–86), and related amendments to TRPA Code Chapters 2, 10, 14, 50, 63, 66, and 90).

In addition, over 170 different plans were adopted for individual geographic areas throughout the region. These included what are known as plan area statements (PASs), Community Plans, and Master and Specific Plans. With the update of the Regional Plan in 2012, local, state, federal, and tribal governments were encouraged to adopt Area Plans to supersede these older types of plans – a process which is currently underway. Local TRPA plans identify permissible uses, developments standards, and other policies that provide more specificity with respect to allowable land uses.

3.11.2 Discussion

a) Physically divide an established community?

No impact. The construction and operation of new piers around Lake Tahoe would not physically divide an established community because no communities exist in the shorezone and piers are small structures that would not impede access. In addition, the CSLC reviews pier applications in partnership with TRPA to ensure public access along the shore of Lake Tahoe is not impeded. Therefore, no impact would occur.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No impact. As described in the 2018 Shoreline Plan EIS, the Shoreline Plan involved amendments to sections of the TRPA Code that address uses and development in the shorezone of Lake Tahoe (TRPA Code Chapters 80–86), and related amendments to TRPA Code Chapters 2, 10, 14, 50, 63, 66, and 90), based on the consensus developed through the steering committee, technical input from the Joint Fact-Finding Committee, and TRPA staff revisions for consistency, streamlining, and environmental adequacy. The Shoreline Plan did not amend the permissible uses within the shorezone or lakezone of Lake Tahoe, which are defined in TRPA Code Section 81.3. The permissible uses within each specific location along the shorezone and described in the applicable PAS, community plans, and area plans.

Consistent with the Shoreline Plan, all piers proposed and constructed under the proposed program would be required to be consistent with the permissible uses identified within local TRPA. In addition to restrictions on and conformance with local TRPA plans, the placement and design of piers would be required to adhere to other code provisions regulating coverage, scenic protection, and stream mouth protection areas.

The proposed program would not result in inconsistencies with the Regional Plan or adopted local TRPA plans because applicable provisions of the Regional Plan would continue to apply to shorezone structures including piers constructed under the proposed program, and all piers would be required to be consistent with the permissible uses identified in the applicable local plan. Consistency with these permissible uses would be verified through the TRPA permitting process prior to approval of any structures under the proposed program. The proposed program would not cause a significant impact due to a conflict with a land use plan, policy, or regulation, and therefore, there would be no impact.

3.12 MINERAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Mineral Resources.				
Would the proposed program:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.12.1 Setting

According to a search of the Mineral Resource Data System (USGS 2021), past mineral production or extraction activities in proximity to the Lake Tahoe Basin have included aggregate and varying grades of metallic resources such as manganese, silver, and gold. No mining resource extraction zoned sites or operations currently occur or are permitted within the Lake Tahoe Basin, including the shorezone.

3.12.2 Discussion

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No impact. No known and or available mineral resources are located within the shorezone. Furthermore, resource extraction is not currently permitted in the program area. Therefore, the proposed program would have no impact.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No impact. El Dorado County and Placer County general plan zoning ordinances have no areas known to contain mineral resources zoned on general plan zoning maps (El Dorado County 2012) (Placer County 2013). Furthermore, as stated in item a) above, mineral resource recovery or extraction is not permitted in the shorezone or generally within the Lake Tahoe Basin. Therefore, the proposed program would have no impact.

3.13 NOISE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Mineral Resources.				
Would the proposed program:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.13.1 Setting

Noise-sensitive land uses generally include those uses where noise exposure could result in health risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, schools, historic sites, and recreation areas are also generally considered sensitive to increases in exterior noise levels. Places of worship and transient lodging, and other places where low interior noise levels are essential, are also considered noise sensitive. Those noted above are also considered vibration-sensitive land uses in addition to commercial and industrial buildings where vibration would interfere with operations within the building, including levels that may be well below those associated with human annoyance. Older buildings are also more prone to vibration-induced damage.

Existing sensitive land uses exist throughout the program area. Because of the regional scale of this proposed program and analysis, identification of individual receptors that might be affected by future, as yet unknown land bank transactions would not be possible. Noise levels and potential impacts are addressed generally because specific locations of future development are unknown.

The sound levels in most communities fluctuate, depending on the activity of nearby and distant noise sources, time of the day, or season of the year. Noise sources in the program area include roadway traffic, aircraft, watercraft, and recreational activity (e.g., people talking, music playing, dogs barking). Other secondary noise influences include noise attributed to construction and natural events, such as thunderstorms.

3.13.2 Discussion

The 2018 Shoreline Plan EIS noted that changes in the number of moorings (i.e., buoys, slips, boat lifts, and boat houses) and access points (i.e., boat ramps) would result in changes in the amount of motorized boating activity on Lake Tahoe (TRPA 2018b:2-19). Because piers do not affect motorized boating capacity at Lake Tahoe, any increase in noise from motorized boating activities under the Shoreline Plan would not be associated with new piers. After construction is completed for the piers and support facilities resulting from the proposed program, operational noise would be associated with people on piers, but these noise sources would be similar to existing noise associated with people recreating on beaches and the lake. For these reasons, operational noise impacts resulting from implementation of the proposed program are not discussed and the analysis below focuses on construction-related noise impacts.

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the program in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?

Less-than-significant impact. The 2018 Shoreline Plan EIS evaluated construction noise impacts associated with buildout of the entire Shoreline Plan, including construction of new piers that could be facilitated by implementation of the proposed program (TRPA 2018b:12-11 through 12-12). The potential effects related to construction noise from construction or reconstruction of piers and support facilities such as walkways, steps, pier decking, pilings, or other access structures in the backshore are the same as those included in the analysis in the 2018 Shoreline Plan EIS; therefore, this analysis is tiered from and consistent with the 2018 Shoreline Plan EIS.

Some construction activity would be associated with new piers and support facilities. Construction activities associated with new piers would require pile driving, material hauling, and heavy-duty equipment such as cranes. Construction equipment use would vary by structure type and phase but would generally involve operation of heavy-duty diesel equipment. Typical noise levels generated by various types of construction equipment likely to be used are identified in Table 3.12-1.

Table 3.12-1 Typical Noise Levels from Construction Equipment

Type of Equipment	Noise Level (dBA L_{max}) at 50 feet
Pile driver (for pier construction)	95
Crane/dozer/excavator/paver	85
Loader	80
Pickup trucks	55

Source: FHWA 2006

Construction noise can vary depending on equipment type, number of pieces of equipment operating simultaneously, and duration of activities. Different equipment and construction methods would be used for pier and support facility construction. Support facility construction would be relatively minor and would not require use of heavy-duty construction equipment. Thus, this analysis focuses on pier construction.

Under the Shoreline Plan in California, and facilitated by the proposed program, 86 new private piers and up to 10 new public piers could be constructed (the number of public piers throughout the whole lake is not allocated by state or jurisdiction). Although specific locations of new piers are unknown, pier construction would involve the use of cranes mounted on watercraft, pile driving to place pier pilings, and other support equipment such as heavy-duty trucks to haul materials and light-duty trucks and vehicles for worker transportation. Boats or barges may be used during construction, but boat use would be minor and typically stationary during construction activities. The equipment used during pier construction is similar to those described above (e.g., excavator, loader, crane). Based on reference noise levels (Table 3.12-3), pile driving would result in the greatest noise levels.

Based on reference maximum noise levels for pile driving, and considering typical equipment usage factors, noise generated during pier construction or modification could result in noise levels of 95 dBA L_{max} and 88 dBA L_{eq} at 50 feet from construction. There are numerous locations around the shoreline where existing residential, tourist accommodation units, and other noise-sensitive land uses (e.g., recreational areas) currently exist. Because piles are typically needed for pier construction, and existing receptors are located within 50 feet of the shoreline in some parts of the lake, it is possible that pile driving for new pier construction could take place within 50 feet of an existing receptor, resulting in noise levels of up to 95 dBA L_{max} , depending on the actual location of piles and existing sensitive land uses.

Construction activities would be consistent with TRPA's Standard Conditions of Approval for Shorezone Projects, which require measures to minimize the exposure of nearby receptors to construction-related noise. One of the key required measures is to limit noise-generating construction activity to the hours between 8:00 a.m. and 6:30 p.m. (TRPA 2019). In addition, the construction activities associated with all new or modified structure components would be relatively minor, temporary, localized, and intermittent, not resulting in a substantial temporary increase in noise.

Given the nature of such construction, and that construction would only occur during the less-sensitive daytime hours, this impact would be less than significant.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less-than-significant impact. The 2018 Shoreline Plan EIS evaluated construction vibration impacts associated with buildout of the entire Shoreline Plan, including construction of new piers that could be facilitated by implementation of the proposed program (TRPA 2018b:12-13 through 12-15). The potential effects related to construction vibration from construction of new piers and support facilities such as walkways, steps, pier decking, and pilings in the backshore are the same as those included in the analysis in the 2018 Shoreline Plan EIS; therefore, this analysis is tiered from and consistent with the 2018 Shoreline Plan EIS. However, the focus of this analysis is pile driving for construction of the piers that could require use of major vibration-inducing construction equipment (e.g., pile driving, blasting) because construction of other structures (e.g., walkways, steps, etc.) would involve minor construction activities but would not require the use of vibration-inducing construction equipment.

According to the Federal Transit Authority (FTA), vibration levels associated with typical pile drivers are 0.644 inches per second (in/sec) peak particle velocity (PPV) and 104 vibration decibels (VdB) at 25 feet (FTA 2006). Based on FTA's recommended procedure for applying a propagation adjustment to these reference levels, vibration levels from pile driving could exceed California Department of Transportation recommended level of 0.2 in/sec PPV with respect to the structural damage within 55 feet of pile driving activities and could exceed FTA's maximum acceptable level of 80 VdB with respect to human response within 160 feet of pile driving activities. Appendix D of the 2018 Shoreline Plan EIS includes attenuation calculations.

There are numerous existing private and public piers located in the program area at varying distances to existing structures, in some cases within 55 feet of existing buildings. It is unknown where additional future piers would be constructed but based on the location of some existing piers around the lake, it is possible that new piers would also be located within 55 feet of existing structures, potentially exposing the structures to ground vibration levels exceeding 0.2 in/sec PPV. Regarding disturbance to sensitive receptors from pile driving activity, all construction activity would be limited to the less sensitive times of the day, in accordance with TRPA's Standard Conditions of Approval. Nonetheless, the potential exists for pier construction to generate vibration that could exceed applicable thresholds of significance.

The construction vibration impact analysis in the 2018 Shoreline Plan EIS concluded that with implementation of vibration reduction measures included in Mitigation Measure 12-2 of the Shoreline Plan EIS, vibration impacts would be reduced to a less-than-significant level. Mitigation Measure 12-2 required TRPA to revise TRPA Permit Attachment S, "Standard Conditions of Approval for Shorezone Projects," to incorporate vibration reduction measures; thus, individual land bank transactions would be required to implement these measures as required by TRPA conditions of approval. Implementation of these measures included in the Standard Conditions of Approval for Shorezone Projects would reduce vibration exposure at nearby receptors by locating equipment as far from receptors as possible, and by phasing operations for shorezone structures that are close enough to each other to combine to produce greater vibration levels. Further, if pile driving would be required near existing structures or sensitive receptors, a site-specific analysis would be required to determine appropriate measures that would prevent structural damage, and would consider site-specific and project-specific details, proximity of structures to pile driving activity, and specific vibration levels based on proposed pile driving parameters. These measures would result in compliance with recommended levels to prevent structural damage and the potential construction vibration impacts would be at a less-than-significant level.

c) For a program located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the proposed program expose people residing or working in the program area to excessive noise levels?

No impact. The Shoreline Plan EIS included a brief discussion of potential impacts related to airport noise (TRPA 2018b:12-1). Exposure to noise from airports would not occur because the Shoreline Plan, including new piers and associated facilities that could be facilitated by implementation of the proposed program, does not include

development of structures where people would reside or work near existing airports. In addition, no residential or tourist accommodation uses are proposed; therefore, noise-sensitive uses would not be placed in areas where existing noise levels exceed applicable limits. The proposed program would have no impact related to noise associated with a private airstrip or airport.

3.14 POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Population and Housing.				
Would the proposed program:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.14.1 Setting

A limited amount of housing and residential development is located within the program area and in proximity to the shorezone. Population and Housing was discussed in Chapter 18, "Other TRPA-Mandated Sections" of the 2018 Shoreline Plan EIS.

3.14.2 Discussion

- a) **Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

No impact. As described in Chapter 18, "Other TRPA-Mandated Sections" of the Shoreline Plan EIS, the Shoreline Plan would not impact existing levels of or demand for housing, because housing availability and demand are driven by primary land uses, not shorezone structures. All shorezone structures would be associated with existing or new primary uses, such as residences, public beaches, or marinas. Furthermore, the Shoreline Plan, and proposed program, do not involve development that could displace existing residents or other populations, and would not cause population growth in the program area (TRPA 2018b: 18-1). The proposed program does not propose any activities and would not result in any additional impacts beyond those impacts than described in the Shoreline Plan EIS. Therefore, the proposed program would have no impact.

- b) **Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

No impact. See discussion under item a) above.

3.15 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. Public Services.				
Would the proposed program:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.15.1 Setting

Fire services are provided primarily by three main organizations within the program area. Lake Tahoe Fire District, the Meeks Bay Fire Protection District, and Lake Valley Fire Protection District. Police services are provided by the City of South Lake Tahoe Police Department and by the El Dorado and Placer County Sheriff’s Departments. Provision of schools and school districts varies by jurisdiction. Impacts and setting information pertaining to parks and recreation are further discussed in Section 3.16 “Recreation” of this document.

3.15.2 Discussion

- a) **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:**

Fire protection, police protection, or schools?

No Impact. As described in Chapter 18, “Other TRPA-Mandated Sections” of the 2018 Shoreline Plan EIS, the Shoreline Plan and proposed program would not induce population growth (see Section 3.14 of this document, “Population and Housing,” above) and therefore will not generate demand for schools or for utilities such as power, natural gas, telecommunication, water, and wastewater disposal (TRPA 2018b: 18-2). These issues were therefore not analyzed further in the 2018 Shoreline Plan EIS. The activities proposed in the proposed program are within the scope analyzed in the Shoreline Plan EIS, therefore, the proposed program would have no impact in this regard.

Parks?

No Impact. See Section 3.16, "Recreation", of this document.

Other public facilities?

No Impact. See discussion under item a) above.

3.16 RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. Recreation.				
Would the proposed program:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.16.1 Setting

As described in Section 8.3, "Affected Environment," in Chapter 8, "Recreation," of the Shoreline Plan EIS, recreation opportunities in the Lake Tahoe region are abundant due to the diverse terrain and topography. Activities are generally associated with the lake's open water (e.g., swimming, boating, personal watercraft use, and fishing), the shoreline (e.g., sunbathing, camping, bicycling, and sightseeing), and the mountains surrounding the lake (e.g., hiking, mountain biking, backpacking, snowboarding, and skiing). The Lake Tahoe Region is home to almost 55,000 full-time residents and is a recreational destination with millions of visitors each year (TRPA 2021:12), including many who live in nearby metropolitan centers within a few hours' travel time.

Recreation facilities in the shorezone on the California side of the Lake include approximately 30 public beaches and shoreline access points. The highest concentration of these public areas are in Tahoe City, Tahoe Vista, Kings Beach, and the south shore between Emerald Bay and the state line. During peak summer months, Lake Tahoe's public beaches and access points are popular places for a variety of recreation activities: swimming, sunbathing, relaxing, barbecuing, paddle boarding, kayaking, jet skiing, and boating.

PIERS

The shorezone of Lake Tahoe in California and Nevada is dotted by a total of 762 piers, nearly all of which are individual private piers or private multiple-use piers. Piers provide opportunities for fishing, viewing and to otherwise experience the lake in a way that does not require getting in the water or using watercraft. When the water is high enough, piers can also serve as a place for swimmers to jump or dive in the lake.

In some sections of Lake Tahoe's shoreline, the density and/or length of piers is such that very little, if any, obstruction to access exists (e.g., east shore, Crystal Point, Emerald Bay). However, in sections with pier densities in excess of one pier every 100 feet (e.g., Rubicon/Meeks Bay, Cedar Flat, portions of Carnelian Bay and Agate Bay) access is significantly restricted. The areas with high densities of piers are areas with a high concentration of private landowners along the shoreline. Where long piers or other shorezone structures, such as piers or buoy fields, are located, nonmotorized watercraft users may be required to travel outside of the 600-foot no-wake zone as they travel laterally around these structures. Outside the no-wake zone, motorized watercraft are allowed to travel at higher speeds. The presence of slower moving nonmotorized watercraft in these areas creates the potential for safety hazards because they might not be highly visible to motorized watercraft or they may be knocked over by large wake from boats.

LAKE TAHOE WATER TRAIL

Lake Tahoe has more than 72 miles of shoreline with approximately 40 public nonmotorized watercraft launch/landing sites (Lake Tahoe Water Trail 2020). The Lake Tahoe Water trail follows the 72-mile route along the shoreline of the lake with opportunities for recreation users to plan day trips between the different public launch and landing points or to plan a multi-day trip. Signs are installed at several launching sites that provide water safety, maps, and other educational information. These locations include Tahoe Vista Recreation Area, Waterman's Landing, Sand Harbor, and Lake Forest Boat Ramp.

3.16.2 Discussion

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less-than-significant impact. The 2018 Shoreline Plan EIS evaluated the potential change in access to or along the shoreline, where recreation uses may occur, from buildout of the entire Shoreline Plan, including new piers that could be facilitated by implementation of the proposed program. The potential effects related to access to the shoreline from new piers that could be facilitated by the proposed program are the same as, although at a lesser magnitude than, those included in the analysis in the 2018 Shoreline Plan EIS. Therefore, this analysis is tiered from and consistent with the 2018 Shoreline Plan EIS. Changes in access to the shoreline could result in recreation users seeking out other shoreline areas.

As described in the 2018 Shoreline Plan EIS, on the California side of Lake Tahoe, a public trust easement allows for public access between the low- and high-water elevation of Lake Tahoe. The area in the public trust easement allows for commerce, navigation, fishing, recreation, and preservation. The high- and low-water marks for the California side of the lake have been established as elevations 6,228.75 feet and 6,223 feet Lake Tahoe datum, respectively. Any activities involving the State's sovereign lands in Lake Tahoe below 6,223 feet require a lease from California State Lands Commission. Modifications of existing and construction of new structures, such as piers, that cross public easement or public trust areas in the shorezone could impede lateral passage of pedestrians along the shore in California. Implementation of the proposed program would allow for the sale of coverage and/or restoration credits to pier applicants to support pier infrastructure; thus, facilitating the construction of piers that could cross the public trust easement. Development of a portion of the total new shorezone structures that extend into the public trust easement could reduce lateral access, restrict the public right of travel along public easement areas, and limit shorezone access (TRPA 2018b:8-28 through 8-29).

Implementation of the proposed program could result in short-term, temporary closures of portions of public beaches during construction of public piers or essential public safety facilities (e.g., public safety pier). Additionally, construction of private piers could result in short-term, temporary limitations on public lateral access within the public trust easement along the shoreline of Lake Tahoe. These short-term, temporary closures or limitations on access during construction activities could cause aquatic recreationists (e.g., swimmers, boaters, and anglers) to increase recreation demand on other nearby beaches or shoreline areas within the program area and surrounding Tahoe region. Because closures of entire beaches would not be anticipated to occur and because of the amount of public beaches available in the program area and Lake Tahoe region, a short-term, temporary effect on recreation opportunities during the times when individual piers are under construction would not result in the concentration of recreation users on any beach.

TRPA and CSLC have adopted a Memorandum of Understanding (MOU) that details a process to coordinate review of applications for new and modified piers in California such that public trust values (e.g., public lateral access) is protected within the public trust easement. The MOU requires design features to accommodate lateral access where it is otherwise legally allowed. TRPA and CSLC could require reasonable design elements to maintain legal public access. Proposed program modifications could include access paths around or under structures; or ladders, ramps, or other structural features that provide public access over structures. Additionally, during construction of private piers, private pier

owners could choose to provide public access landward of the pier instead of providing access through the public trust easement.

The analysis in the 2018 Shoreline Plan EIS concludes that new structures, design standards, or other regulatory provisions associated with the Shoreline Plan would not change public access to the shoreline or lateral pedestrian access along the shoreline. The TRPA MOU with CSLC would protect lateral access for the public along the public trust easement below the high-water mark in California. Short-term effects related to increased use of existing recreational facilities would not result in substantial physical deterioration or acceleration of physical deterioration of those resources. For these reasons, the impact would be less than significant.

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

Less-than-significant impact. Piers provide opportunities for fishing, viewing and to otherwise experience the lake in a way that does not require getting in the water or using watercraft; thus, piers would be considered a recreation facility.

Construction activities associated with walkways, steps, pier decking, pilings, and new piers associated with the proposed program in Section 2.4.2, "Construction Approach," may include clearing vegetation and grading. Piles for piers could be installed by either pile driving or drilling. Such activities could require use of vehicles and heavy equipment, and building materials and supplies, and would generate noise and air emissions. These construction activities could result in adverse physical effects on the environment, which are assessed in the applicable resource sections of this IS/ND. In particular, these construction activities could result in potential adverse impacts related to aesthetics, air quality, biological resources, cultural resources, geology and soils, hydrology and water quality, and noise.

Construction activities associated with new or expanded recreation facilities would be reviewed and approved, as required, under TRPA Code, Lahontan RWQCB requirements, and NPDES permits, which would include preparation and implementation of a Stormwater Pollution Prevention Plan. Additionally, individual land bank transactions would be required to implement applicable construction BMPs included in the TRPA "Standard Conditions of Approval for Grading Shorezone Projects." Also, see Section 3.1, "Aesthetics," Section 3.3, "Air Quality," Section 3.4, "Biological Resources," Section 4.5, "Cultural Resources," Section 4.7, "Geology and Soils," Section 3.9, "Hazards and Hazardous Materials," Section 3.10, "Hydrology and Water Quality," Section 3.13, "Noise," and Section 3.14, "Tribal Cultural Resources," for more detailed discussions of how potential construction-related impacts of the proposed program would be reduced.

By implementing applicable TRPA and other regulatory requirements for the protection of environmental resources during construction activities, implementation of the proposed program would result in a less-than-significant impact from construction of recreational facilities.

3.17 TRANSPORTATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. Transportation.				
Would the proposed program:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.17.1 Setting

ROADWAY SYSTEM

The four basic types of roadways in or near the program area include state routes, arterials, collectors, and local/neighborhood streets.

State Highways

Most vehicular travel in the Tahoe region occurs on state highways including U.S. 50, SR 28, SR 89, SR 207, SR 267, and SR 431. Most highways are two-lane facilities; however, portions of U.S. 50, SR 28, and SR 89 have wider cross-sections such as four-lane roadways with center two-way left turn lanes.

Arterials

Arterial roadways carry moderate to high traffic volumes to and from local and collector roads to other arterials and highways. Although access to adjacent parcels is more limited from arterials than from collector and local streets, arterial roadways also provide direct access to properties, particularly in commercial areas.

Collectors

Collector roadways serve as transition facilities, distributing traffic from arterials and highways to their ultimate destination, and collecting traffic from local roadways to roads higher in the street classification hierarchy, such as arterials and state highways. Collector roads serve a dual function by providing access to properties on the roadway and moving moderate traffic volumes for medium length trips.

Local/Neighborhood Streets

Local roadways are intended to serve as access roads to adjacent properties only. They provide connections to higher order roadways, carry little if any through traffic, and generally have low traffic volumes.

BICYCLE AND PEDESTRIAN FACILITIES

The current network includes approximately 50 miles of shared-use path, 44 miles of bicycle lanes, 23 miles of sidewalks, and four enhanced crosswalks that include a pedestrian activated beacon or rapid flashing beacon (TRPA 2017). LTBMU also operates and maintains 350 miles of National Forest System trails and 250 miles of National Forest System roads (TRPA 2017).

The Region has over 70 miles of separated class-I shared-use paths and sidewalks. These routes are well-connected in some areas and have gaps in others. Caltrans and local jurisdictions have constructed sidewalks along the state highway system through town centers and more are planned. Local jurisdictions are connecting Class-I shared-use paths around the lake, providing links across communities and to neighboring areas (TRPA 2017).

TRANSIT SYSTEM

Transit service within the program area is provided by a mix of public and private transit services. The Tahoe Transportation District and Tahoe Truckee Area Regional Transit are the regional transit providers. These two transit providers operate year-round and seasonal services on the north, east, south, and west shores. They also provide commute services to nearby areas such as Truckee to the north, and Carson Valley to the east. Washoe Regional Transportation Commission, the Town of Truckee, State Departments of Transportation, and private entities such as ski resorts also partner with the transit providers to offer transit service through cost sharing agreements, formula funding allotments, and private shuttles and taxi services (TRPA 2017).

TRPA PROJECT IMPACT ASSESSMENT GUIDELINES

The TRPA Project Impact Assessment Guidelines (PIA) describe requirements for development project assessment in the Lake Tahoe Basin. These guidelines reflect 2021 updates to the TRPA Environmental Thresholds, which involved replacement of the previous vehicles miles traveled- (VMT)-based nitrate deposition threshold with a new VMT-based threshold focused on reducing mobile source GHG emissions, reducing dependency on the personal automobile, and creating more sustainable communities. This update resulted in revisions to Chapter 65: *Air Quality/Transportation* of the TRPA Code of Ordinances to establish PIA requirements designed to implement the revised TRPA environmental threshold and ensure that it aligns with recent California legislative changes (i.e., Senate Bill 743, Public Resources Code Section 21099, and California Code of Regulations Section 15064.3) that have occurred relative to transportation impact analysis and the use of VMT as the primary metric.

This document provides a basis for preparing a VMT analysis in compliance with Chapter 65 of the TRPA Code of Ordinances and the *Project Impact Assessment and Air Quality Mitigation Fee Framework*. The PIA exclusively deals with VMT analysis, it does not address all transportation impact analysis components that may be needed as part of the TRPA environmental review process and also does not address local transportation assessments or CEQA requirements, which are determined by the county in this case (TRPA 2021a).

Some project types, as outlined in TRPA Code Subparagraph 65.2.3.D and listed below, are presumed to result in a less-than-significant VMT impact absent any evidence to the contrary. The following screening criteria are potentially applicable to the proposed program:

- ▶ Projects Generating Low VMT: Projects will be screened from further transportation analysis using the following vehicle miles travelled calculations:
 - 1,300 in-Lake Tahoe Basin VMT within town centers and the half-mile buffer around them.
 - 715 in-Lake Tahoe Basin VMT in all other areas.

ELDORADO COUNTY GUIDANCE

In October 2020, the Board of Supervisors adopted Resolution 141-2020. This resolution establishes the County's application of the methodology, significance thresholds, mitigation measures, and exemptions for implementation of the vehicle miles traveled (VMT) standard, per Senate Bill 743, for land use projects. Resolution 141-2020 incorporates by reference the Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (OPR 2018). The resolution presumes that there would be a less-than-significant VMT impact for:

- a. Projects that generate or attract less than 100 trips per day, consistent with OPR's determination of projects that generate or attract fewer than 110 trips per day and further reduced to 100 to remain consistent with the existing threshold in General Plan Policy TC-Xe;
- b. Projects that are within 0.5-mile of either a major transit stop, as defined in Public Resources Code Section 21064.3, or a high-quality transit corridor, as defined in Public Resources Section 21155. Consistent with State CEQA Guidelines Section 15064.3(b)(l) and OPR's conclusions in its Technical Advisory; and
- c. 100 percent affordable residential development, including moderate, low, and very low categories as defined in the Regional Housing Needs Assessment (RHNA), consistent with OPR's conclusions in its Technical Advisory.

As referenced above, the El Dorado County General Plan Transportation Element includes the following policy related to VMT:

- ▶ Policy TC-Xe: For the purposes of this Transportation and Circulation Element, "worsen" is defined as any of the following number of project trips using a road facility at the time of issuance of a use and occupancy permit for the development project:
 - A. A 2 percent increase in traffic during the a.m. peak hour, p.m. peak hour, or daily, or
 - B. The addition of 100 or more daily trips, or
 - C. The addition of 10 or more trips during the a.m. peak hour or the p.m. peak hour.

PLACER COUNTY GUIDANCE

The Placer County Board of Supervisors adopted the updated County of Placer Transportation Study Guidelines (TSG) on May 21, 2020. These guidelines describe the transportation analysis requirements for land development projects and major land plans (e.g., specific plans, community/area plans, etc.) in Placer County. The updates to the TSG reflect additional analysis requirements for projects in East Placer, including the Lake Tahoe Basin.

The TSG presents direction for assessing VMT impacts for land development projects within Placer County in compliance with CEQA Guidelines Section 15064.3 and TRPA requirements, and addresses screening criteria, significance thresholds, analysis methodology, and mitigation (Placer County 2021).

The following screening criteria are potentially applicable to the program for CEQA purposes:

- ▶ Small Projects: Defined as a project that generates 110 average daily vehicle trips or 1425 VMT or fewer in eastern Placer County on a typical day.
- ▶ Recreational Amenities: Defined as a project that provides additional recreational opportunity for existing residents and visitors. Recreational amenities supplement existing recreational opportunities, without significantly increasing recreational demand. If the proposed recreational amenity project is not constructed, the resident or visitor would likely substitute a different local recreation opportunity. These are often (but not required to be) accessory uses to a larger recreational destination. Accessory uses are generally defined as uses that do not change the character of the larger recreation destination (e.g., not a ski or beach resort).
- ▶ Seasonal Recreation: Defined as a recreational project that does not operate year-around. Seasonal recreation projects often operate for a limited period and may reoccur each year. To qualify for screening under VMT, the seasonal amenity must fall below the annualized VMT of the small project screen, as defined above. For

example, the VMT of a small winter sports operation may be considered less than significant if the project generates fewer than 110 daily trips or 880 daily VMT (West Placer) or 1425 daily VMT (East Placer) when averaged over the course of a year (annualized).

3.17.2 Discussion

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

No impact. The Shoreline Plan EIS included a brief discussion of potential impacts on transit service and bike and pedestrian facilities (TRPA 2018b:13-1 and 13-2). The structures that could be developed under the proposed program would be piers and upland access structures (e.g., walkways). Most of the piers would be located on private property associated with residences, which are generally accessed by private vehicles. It is likely that some transportation to new public piers accommodated by the proposed program could involve use of transit, bicycles, or pedestrian infrastructure. However, it is unlikely that such facilities would create such a demand for transit or active transportation such that it would result in the need for increased transit service or bike and pedestrian facilities. Therefore, the proposed program would have no impact on transit demand and operations, and bicycle and pedestrian infrastructure.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3(b), which pertains to vehicle miles travelled?

Less-than-significant impact. The 2018 Shoreline Plan EIS analyzed VMT based on TRPA's regional VMT threshold standard in place at the time, which was established through the Bi-State Compact in 1982 and established a goal of reducing NOx emissions from cars and trucks in the region by 10 percent from 1981 levels. However, that VMT threshold standard did not address VMT as required by State CEQA Guidelines Section 15064.3, which had not yet been adopted.

As detailed in the 2018 Shoreline Plan EIS, new buoys, boat slips, and boat ramps would generate new vehicle trips (TRPA 2018b:13-9 through 13-10). However, the 2018 Shoreline Plan EIS determined that operation of new piers or upland structures associated with accessing those piers, such as those that could be implemented under the proposed program, would not generate new vehicle trips. Therefore, based on the VMT screening criteria for small projects established by TRPA (i.e., less than 715 average daily VMT), El Dorado County (i.e., less than 100 average daily vehicle trips), and Placer County (i.e., less than 110 average daily vehicle trips or 1,425 VMT); individual land bank transactions developed under the proposed program as well as the proposed program as a whole would be presumed to result in a less-than-significant impact to operational VMT.

CEQA Guidelines Section 15064.3(b)(3), Qualitative Analysis, states that if existing models or methods are not available to estimate the VMT for the particular project being considered, a lead agency may analyze the project's VMT qualitatively. Additionally, this section notes that for many projects, a qualitative analysis of construction traffic may be appropriate. Therefore, construction-related VMT impacts are analyzed qualitatively below.

Construction associated with implementation of the proposed program would result in VMT associated with construction employees traveling to and from individual construction locations and would vary based on phases of construction and the number of piers being concurrently constructed. Only 12 piers could be constructed every 2 years throughout the entire Lake Tahoe Basin under the Shoreline Plan, which limits the amount of pier-construction-related VMT. However, construction activities would not result in long-term increases in vehicular trips because the construction would be temporary and intermittent in nature. Additionally, the VMT of construction workers is not newly generated; instead, it is redistributed throughout the regional roadway network based on the different work sites in which workers travel to each day. Therefore, construction workers are not generating new VMT each day, only redistributing it. This redistribution would be nominal and temporary; thus, construction traffic would not significantly increase VMT in the region. Therefore, implementation of the proposed program would result in a less-than-significant impact related to VMT.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No impact. The proposed program would not include development of new permanent structures or uses that would increase hazards due to roadway design features or incompatible uses. There would be no impact.

d) Result in inadequate emergency access?

Less-than-significant impact. The 2018 Shoreline Plan EIS evaluated the effects on emergency access from build-out of the entire Shoreline Plan, including the proposed program. The potential effects related to emergency access from new piers that could be facilitated by implementation of the proposed program are the same as, although at a lesser magnitude than, those included in the analysis in the 2018 Shoreline Plan EIS; therefore, this analysis is tiered from and consistent with the 2018 Shoreline Plan EIS.

The Shoreline Plan EIS explained that existing emergency access to the lake is provided primarily by marinas and boat ramps. Because most of the emergency responders' watercraft are located on the water, lake access is not an issue for a majority of first responders. The proposed program would facilitate construction of new piers within the California side of the Lake Tahoe Basin that would include essential public safety facilities, such as public safety piers. Essential public safety facilities allowed by TRPA Code Section 84.8.2 within the shorezone provide lake access and egress for public safety and emergency response. This would enhance shoreline emergency access for emergency responders (TRPA 2018b:15-24 through 15-25).

Additionally, because the proposed program focuses on providing land coverage and/or restoration credits for access facilities for new and reconstructed piers and other structures within the shorezone, the program would not result in inadequate emergency access for emergency vehicles on public roadways. Impacts to emergency access from implementation of the proposed program would be less than significant.

3.18 TRIBAL CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>XVIII. Tribal Cultural Resources.</p> <p>Has a California Native American Tribe requested consultation in accordance with Public Resources Code section 21080.3.1(b)?</p> <p>Would the proposed program cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p>				
<p>a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.18.1 Environmental Setting

As described in Chapter 16, "Cultural Resources," of the 2018 Shoreline Plan EIS, prior to historic contact in the early to mid-1800s, the shores of Lake Tahoe were part of the vast territory held by the Washoe people. Washoe territory extended north to Honey Lake and south to the headwaters of the Tuolumne River. To the east, the valleys at the base of the Sierra were also Washoe territory. The boundary to the west was more fluid, involving shared use of the upper and lower western slopes with the Nisenan and Miwok.

The primary sociopolitical group among the Washoe was the small extended family over which presided a family headman. Permanent villages were inhabited year-round, but most able-bodied adults and older children shifted their residence throughout the warmer seasons. A winter settlement would be home to several of these families, who shared a group identity but acted independently in most matters. While areas of settlement were rich in resources, they were relatively small oases within less-usable lands. This "patchiness" of the Washoe environment was best utilized by changing residence often to exploit resources in different zones as they became available, and by keeping populations sufficiently low to assure ample food for all members of the group.

The Washoe regularly convened throughout the year to participate in rabbit drives and large-scale fowling and fishing activities, as well as to maintain family contacts. The American River and Lake Tahoe were major year-round fisheries with good locations for villages and camps, and the Martis Valley was an important gathering place to obtain edible and medicinal roots, seeds, and marsh plants.

Washoe lifeways were not directly affected by the earliest historic-period activities in California and Nevada. However, by the 1850s and 1860s Washoe culture was affected by thousands of outsiders who had moved through their territory. Ranchers and other settlers restricted Washoe use of lands and resources. Although traditional settlement and subsistence practices were profoundly disrupted, many traditional customs persist among the Washoe people today.

As described above under Section 3.5, Cultural Resources," there are at least 20 archaeological features known to TRPA within the Lake Tahoe area and there are many small sites around the Lake where a variety of artifacts have been discovered.

ASSEMBLY BILL (AB) 52 CONSULTATION

AB 52, signed by the California Governor in September of 2014, established a new class of resources under CEQA: "tribal cultural resources," defined in Public Resource Code (PRC) 21074. Pursuant to PRC Sections 21080.3.1, 21080.3.2, and 21082.3, lead agencies undertaking CEQA review must, upon written request of a California Native American Tribe, begin consultation before the release of an environmental impact report, negative declaration, or mitigated negative declaration. If the lead agency determines that a project may cause a substantial adverse change to a tribal cultural resource, and measures are not otherwise identified in the consultation process, provisions under PRC Section 21084.3 (b) describe mitigation measures that may avoid or minimize the significant adverse impacts.

On June 16, 2021, the Conservancy sent notifications pursuant to AB 52 regarding the proposed program via certified mail to three Native American tribes culturally and traditionally associated with the program area to request input on the presence of tribal cultural resources. Letters were sent to the following tribes: the Washoe Tribe of Nevada and California, United Auburn Indian Community of the Auburn Rancheria, and the Torres Martinez Desert Cahuilla Indians. The Conservancy received a response from the Torres Martinez Desert Cahuilla Indians; they deferred consultation to the Washoe Tribe of Nevada and California. No other responses were received, and AB 52 consultation is complete.

Prior to AB 52 outreach, the Conservancy had a conversation with Susan Jamerson of the Washoe Tribe on July 13, 2021 to provide an overview of the development rights and coverage system in Lake Tahoe and the Conservancy Land Bank. Conservancy staff provided the scope of work for the CEQA document related to coverage and/or restoration in the backshore associated with piers and other related access structures. Ms. Jamerson shared that the Washoe Tribe follows the developments in the West Shore of Lake Tahoe and in Meeks Bay. The Washoe Tribe has consistently been opposed to motorized traffic in Meeks Bay due to 1) safety of kids and swimmers and 2) increased disturbances and noise in Meeks Bay. She also shared that it is highly unlikely that the tribe will post a comment since the scope of this document is very narrow.

3.18.2 Discussion

Would the program cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the

landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

Less-than-significant impact. This potential effect is the same as analyzed in the 2018 Shoreline Plan EIS, and therefore this analysis tiers from and is consistent with the 2018 Shoreline Plan EIS. The 2018 Shoreline Plan EIS evaluated the effects of build-out of the entire Shoreline Plan to ethnic and cultural values, including the proposed program (TRPA 2018b:16-15 to 16-16).

The demolition, alteration, or disturbance of existing sites, buildings, and structures that are designated historic resources or eligible for listing as historic resource could have religious or sacred significance to a local Native American tribe. These could be permanent changes that alter or remove features or temporary changes that involve restriction of access to sites during construction activities for land bank transactions. These changes could infringe on sacred sites or uses that are adjacent to or within the boundaries of projects. For example, the development of new piers could bifurcate existing sacred sites, reducing intactness.

Although no tribes indicated the presence of any tribal cultural resources during AB 52 consultation in the proposed program area, construction-related activities, both ground-disturbing and staging access, could encounter previously undiscovered or unrecorded tribal cultural resources that may be designated historic or eligible for listing as a historic resource. Therefore, the proposed program could result in physical changes to sites, structures, and areas that have religious or sacred significance or other cultural significance to Native American tribes. The measure identified in the 2018 Shoreline Plan EIS to reduce impacts to tribal cultural resources (i.e., Mitigation Measure 16-3) has been incorporated into the TRPA Code of Ordinances (i.e., Section 67.3, Resource Protection). Accordingly, land bank transactions would be required to implement the following measure:

- ▶ Implement Mitigation Measures 16-1 and 16-2.

Mitigation Measure 16-1 requires that all historic-age buildings and structures be evaluated prior to disturbance and measures be implemented to avoid impacts. Mitigation Measure 16-2 requires that archaeological surveys be conducted prior to disturbance, and measures to avoid, move, record, or otherwise treat a discovered resource appropriately be implemented, in accordance with pertinent laws and regulations, including notifying the appropriate Native American group if the find is a prehistoric archeological site. Therefore, with adherence to the requirements of TRPA's Code of Ordinances Section 67.3, the impact would be less than significant.

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less-than-significant impact. See discussion under item a) above.

3.19 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. Utilities and Service Systems.				
Would the proposed program:				
a) Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the program and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a determination by the wastewater treatment provider that serves or may serve the program that it has adequate capacity to serve the program’s projected demand, in addition to the provider’s existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.19.1 Setting

Electric, water, wastewater, solid waste, and telecommunications are provided by different service providers across the program area. Major telecommunications providers include AT&T and Comcast. Electricity is provided by Liberty Utilities and Pacific Gas and Electric (PG&E). Wastewater providers include the Tahoe Truckee Sanitation District and the South Tahoe Public Utility District. Construction waste disposal within the plan area is regulated by TRPA Code Chapter 33.3.5. Disposal of Materials.

3.19.2 Discussion

- a) **Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?**

Less-than-significant impact. Impacts pertaining to provision of public services under the proposed program are consistent with those analyzed in the 2018 Shoreline Plan EIS, and therefore the analysis is tiered from and consistent

with the 2018 Shoreline EIS in Chapter 18, "Other TRPA-Mandated Sections" of the 2018 Shoreline Plan EIS. Activities proposed under the shoreline plan were determined not to result in major alterations or increased need for utilities such as water, gas, electricity, and wastewater services (TRPA 2018b: 18-2).

Construction activities occurring for future land bank transactions under the Shoreline Plan EIS may utilize water services and generate solid waste associated with construction, but the amount of waste produced, and water demand generated would be insignificant compared to overall use the program area's total water use. Future piers, walkways, pilings, or other shorezone structures constructed under the Shoreline Plan that require lighting to adhere to public safety and accessibility standards may require connections to existing utility lines; however, connecting new facilities to existing electricity sources would not contribute significantly to electricity demand compared to the overall use in the program area. The impact is therefore less than significant.

b) Have sufficient water supplies available to serve the program and reasonably foreseeable future development during normal, dry, and multiple dry years?

No impact. The proposed program would not generate permanent new water demand. Minor amounts of water may be required to serve construction sites for future land bank transactions occurring under the proposed program. This impact would be minimal and temporary in nature and would not generate water demand for extended periods of time. The proposed program would have no impact in this regard.

c) Result in a determination by the wastewater treatment provider that serves or may serve the program that it has adequate capacity to serve the program's projected demand, in addition to the provider's existing commitments?

No impact. The proposed program would not generate demand for wastewater services. There would be no impact in this regard.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less-than-significant impact. The proposed program would result in construction that could generate solid construction waste. However, these impacts would not exceed state or local standards, would be temporary and limited in nature, and would be required to comply with existing waste disposal requirements per the TRPA Code. The proposed program would therefore have a less than significant impact in this regard.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No impact. See discussion under item d) above.

3.20 WILDFIRE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. Wildfire.				
Is the proposed program located in or near state responsibility areas or lands classified as high fire hazard severity zones?				
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the proposed program:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.20.1 Setting

Forested areas in the Lake Tahoe Basin are generally fire prone. However, the program area is shorezone does not include lands designated as high fire hazard severity zones (TRPA 2018b: 18-2).

3.20.2 Discussion

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. Impacts related to wildfire under the proposed program are consistent with those analyzed in the 2018 Shoreline Plan EIS, and therefore the analysis is tiered from and consistent with the 2018 Shoreline EIS. Wildfire was discussed in Chapter 18, "Other TRPA-Mandated Sections" of the 2018 Shoreline Plan EIS. The Shoreline Plan determined the plan area was not an area designated as a fire hazards severity zone, and wildfire was not further analyzed in the EIS. The proposed program would transfer restoration credits and/or coverage to allow construction and reconstruction of piers and pier-supporting structures such as walkways, steps, pilings, and other structures in backshore areas. The proposed program does not propose any activities outside of the scope of those proposed in

the 2018 Shoreline Plan EIS, and would therefore not result in any additional impacts beyond what was analyzed in the Shoreline Pan EIS. The proposed program would have no impact in this regard.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. The proposed program would not result in additional occupants or residents within a very high fire hazard severity zone. The proposed program could result in the construction of piers and other over-water and water-adjacent structures that would not present a substantial wildfire risk. Therefore, there would be no impact.

c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less-than-significant impact. Future activities under the shoreline plan and under the proposed program may result in temporary utility or water connections required for construction activities. Minor electric utility connections may be required if new shoreline structures are required to connect to existing utility lines in order to provide lighting required to meet safety standards. No new power lines or other utility lines would be required under the proposed program. Connection of shoreline facilities to existing powerlines would comply with vegetation setback requirements in order to reduce potential risks related to wildfire. Therefore, this impact would be less than significant.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No impact. Future activities under the proposed program would not expose people or structures to areas prone to severe wildfire hazards risk. The proposed program would not introduce substantial drainage changes. Therefore, the proposed program would have no impact in this regard.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. Wildfire.				
Is the proposed program located in or near state responsibility areas or lands classified as high fire hazard severity zones?				
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the proposed program:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.21.1 Discussion

- a) Does the program have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

Less-than-significant impact. See the discussion in Sections 3.1 through 3.20, above, including the discussions related to vegetation, wildlife, and historic resources in sections 3.2, 3.4, 3.5, and 3.18, respectively. For the reasons described in those sections, this impact would be less than significant.

- b) Does the program have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a

project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Less-than-significant impact. This potential effect is the same as those analyzed in the 2018 Shoreline Plan EIS, and therefore this analysis tiers from and is consistent with the 2018 Shoreline Plan EIS. The 2018 Shoreline Plan EIS evaluated the cumulative impacts of long-term implementation of the Shoreline Plan on pages 17-5 through 17-20 (TRPA 2018b). Because the proposed program would facilitate implementation of the Shoreline Plan with respect to new piers in the California side of the Lake Tahoe Basin and would not increase the potential for future development of shoreline structures beyond those anticipated in the Shoreline Plan, the proposed program would be consistent with the cumulative analysis in the 2018 Shoreline Plan EIS. This impact would be less than significant.

c) Does the program have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Less-than-significant impact. See the discussion in Sections 3.1 through 3.20, above, including the discussions related to hazards and hazardous materials and wildfire in Sections 3.9 and 3.20, respectively. For the reasons described in those sections, this impact would be less than significant.

4 REFERENCES

- California Air Resources Board. 2004. *2004 Revision to the California State Implementation Plan for Carbon Monoxide-Maintenance Plan*. July 2004. Available: http://www.arb.ca.gov/planning/sip/co/final_2004_co_plan_update.pdf. Accessed February 29, 2018.
- . 2014 (May). *First Update to the Climate Change Scoping Plan*. May 2014. Available: https://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf. Accessed January 3, 2017.
- . 2017a. Area Designations Maps / State and National. Available: <https://www.arb.ca.gov/desig/adm/adm.htm>. Last Updated October 18, 2017. Accessed February 9, 2018.
- . 2017b. *Documentation of California's 2000-2015 GHG Inventory — Index*. Available: https://www.arb.ca.gov/cc/inventory/doc/doc_index.php. Last modified June 6, 2017. Accessed February 14, 2018.
- Caltrout. See California Trout Inc.
- California Trout Inc. 2017. Mountain Whitefish *Prospium williamsoni* (Girard). Available: <http://caltrout.org/wp-content/uploads/2017/05/mountain-whitefish-final.pdf>. Accessed January 29, 2018.
- CARB. See California Air Resources Board.
- Churchill, R. K., and R. L. Hill. 2000. *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos*. CA Department of Conservation, Open-File Report 2000-19. August 2000. Available: ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/ofr_2000-019.pdf. Accessed February 9, 2018.
- El Dorado County. 2012. Zoning Ordinance Map.
- EPA. See U.S. Environmental Protection Agency.
- Federal Transit Administration. 2006. *Transit Noise and Vibration Impact Assessment*. Washington, D.C.
- FTA. See Federal Transit Administration.
- Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.
- Higgins, C., and J. Clinkenbeard. 2006. *Relative Likelihood for the Presence of Naturally Occurring Asbestos in Placer County, California*. California Department of Conservation Special Report 190.
- Ichinose, G.E., J.G. Anderson, K. Satake, R.A. Schweickert, and M.M. Lahren. 2000. *The potential hazard from tsunami and seiche waves generated by large earthquakes within Lake Tahoe, California-Nevada*. *Geophysical Research Letters* Vol. 27, No. 8, 1203-1206. April 2000.
- Intergovernmental Panel on Climate Change. 2014. *Climate Change 2014 Synthesis Report Summary for Policymakers*. Geneva, Switzerland. Available: https://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf. Accessed January 3, 2017.
- IPCC. See Intergovernmental Panel on Climate Change.
- Lahontan Regional Water Quality Control Board and Nevada Division of Environmental Protection. 2010. *Final Lake Tahoe Total Maximum Daily Load*. South Lake Tahoe, CA and Carson City, NV. November 2010.
- Lake Tahoe Info. 2021. *Nearshore (Littoral) Lake Tahoe Threshold Evaluation*. Available: <https://thresholds.laketahoeinfo.org/ThresholdReportingCategory/Detail/NearshoreLittoralLakeTahoe>. Accessed July 12, 2021.

- Lake Tahoe Water Trail. 2020. Lake Tahoe Water Trail FAQs. Available: <http://laketahoewatertrail.org/>. Accessed July 8, 2021.
- Moore, J.G., R.A. Schweickert, J.E. Robinson, M.M. Lahren, and C.A. Kitts. 2006. *Tsunami-generated boulder ridges in Lake Tahoe, California-Nevada*. *Geology* Vol. 34 No. 11, 965-968. November 2006.
- Moyle, P.B. 2002. *Inland Fishes of California*. Berkeley, CA: University of California Press.
- OPR. See Governor's Office of Planning and Research.
- Pavlik, B., D. Murphy, and the Tahoe Yellow Cress Technical Advisory Group. 2002. *Conservation Strategy for Tahoe Yellow Cress (Rorippa subumbellata)*. Tahoe Regional Planning Agency. Stateline, NV. August.
- Placer County. 2013. Placer County General Plan Land Use Map.
- . 2021. *County of Placer Transportation Study Guidelines*. May 2021.
- Ragan, Mark. Pacific Built, Inc. Tahoe City, California. 2017. Telephone discussion with Rachel Kozloski of Ascent Environmental regarding probably techniques for pier removal and construction at Kings Beach State Recreation Area. May 16, 2017.
- Simon, A. 2006. *Estimates of Fine-Sediment Loadings to Lake Tahoe from Channel and Watershed Sources*. USDA – Agricultural Research Service, National Sedimentation Laboratory, Oxford, MS.
- Stanton, A., and Tahoe Yellow Cress Adaptive Management Working Group and Executive Committee. 2015. *Conservation Strategy for Tahoe Yellow Cress (Rorippa subumbellata)*. USDA Forest Service Pacific Southwest Research Station. Albany, CA. October 23.
- State Water Resources Control Board. 2021. *Geotracker*. Available: <https://geotracker.waterboards.ca.gov/>. Accessed July 11, 2021.
- SWRCB. See State Water Resources Control Board.
- Tahoe Regional Planning Agency. 2012. *Code of Ordinances*. Adopted December 12, 2012; reflects amendments through April 28, 2021.
- . 2014. *Tahoe Regional Planning Agency Best Management Practices Handbook*. Stateline, NV.
- . 2016. *2015 Threshold Evaluation*. Available at: <http://www.trpa.org/regional-plan/threshold-evaluation/>. Accessed February 2, 2018.
- . 2017. *Linking Tahoe: Regional Transportation Plan and Sustainable Communities Strategy*. Stateline, NV. Available: <http://www.trpa.org/regional-plan/regional-transportation-plan/>.
- . 2018a. *Lake Tahoe Shoreline Plan*. August 2018.
- . 2018b. *Shoreline Plan Environmental Impact Statement*. September 2018.
- . 2018c. *Shoreline Implementation Program*. October 24, 2018.
- . 2019 (March). *TRPA Permit Attachment S, Standard Conditions of Approval for Shorezone Projects*. March 2019.
- . 2021a. *TRPA Project Impact Assessment Guidelines, Public Review Draft*. June 2021.
- TRPA. See Tahoe Regional Planning Agency.
- UC Davis. See University of California, Davis.
- University of California, Davis. 2017. *California Fish Species-Paiute Sculpin*. Available: <http://calfish.ucdavis.edu/species/?ds=241&uid=63>. Accessed January 21, 2018.
- U.S. Environmental Protection Agency. 2018a. *California Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants*. Available: https://www3.epa.gov/airquality/greenbook/anayo_ca.html. Last Updated: January 31, 2018. Accessed February 9, 2018.

- . 2018b. *Nevada Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants*. Available: https://www3.epa.gov/airquality/greenbook/anayo_nv.html. Last Updated: January 31, 2018. Accessed February 9, 2018.
- U.S. Fish and Wildlife Service. 2014. *Lahontan Cutthroat Trout (Oncorhynchus clarkia henshawi)*. Available: https://www.fws.gov/nevada/protected_species/fish/species/lct.html. Accessed January 21, 2018.
- USFWS. See U.S. Fish and Wildlife Service.
- U.S. Geological Survey. 2021. *Mineral Resource Data System*. Available: www.mrdata.usgs.gov/mrds/map-graded.html#home. Accessed: July 12, 2021.
- USGS. See U.S. Geological Survey.
- Van Gosen, B. S., and J. P. Clinkenbeard. 2011. *Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California*. U.S. Geological Survey, California Geological Survey. Sheet 59.

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