

California Tahoe Conservancy
Agenda Item 9
September 18, 2014

**UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT
PRELIMINARY RECOMMENDED ALTERNATIVE**

The Upper Truckee River and Marsh Restoration Project (Project) aims to restore the natural geomorphic processes and functions of the Upper Truckee River and Marsh to improve the area's ecological values and filtering capacity, with a complementary and appropriate level of recreation infrastructure. The Upper Truckee Marsh (UTM) is a 600 acre wetland at the confluence of the two largest watersheds in the Lake Tahoe Basin (Upper Truckee River and Trout Creek). The Conservancy acquired the majority of the UTM in two acquisitions in 1988 and 2000, and has been developing the Project for over two decades. The Conservancy leads the Project team, which includes the Tahoe Regional Planning Agency (TRPA), U.S. Bureau of Reclamation (BOR), the California Department of General Services (DGS) and the State's engineering and environmental consultants (Cardno ENTRIX and AECOM, respectively).

The Project has undergone a substantial planning process that analyzed the site's existing conditions, developed a focused list of objectives, and created an array of feasible alternatives. The Project's environmental document (Draft EIR/EIS/EIS) analyzed the four action alternatives and the no project alternative equally, as no preferred alternative was identified. The Project team conducted extensive public outreach and education, including a formal public comment period in spring of 2013. Upon completion of the public review period, the Project team developed criteria and a process for selecting the recommended alternative.

Conservancy staff has identified a preliminary recommended alternative for the Project (Attachment 1). The staff recommended alternative consists of restoration and recreation elements from the alternatives which were evaluated within the Draft EIR/EIS/EIS. Attachment 2 is a summary description of the project alternatives from the Executive Summary of the EIR/EIS/EIS. Staff will be presenting this preliminary recommended alternative to the Board for informational purposes and not for Board action. The purpose is to educate and update the Board and the public about the ongoing project process.

Elements of the staff recommended alternative include (see Attachment 2):

- Restoration Element of Alternative 3, Middle Marsh Corridor: Reconnect the Upper Truckee River to the center of the UTM, allowing flows to spread over the vast expanse through a naturally functioning, deltaic channel network.
- Recreation Element of Alternative 5, Eastside of the UTM : Retaining the existing trail and neighborhood access points along the eastern perimeter of the UTM, providing access to the shoreline of Lake Tahoe, and continuing the dispersed recreation experience.
- Recreation Element of Alternative 3, Westside of the UTM: Enhancing the trail to Lake Tahoe by improving ADA accessibility, creating viewpoints of interest, and providing educational and resource interpretation opportunities, while maintaining the existing developed recreation experience.

Staff, with the assistance of consultants, evaluated the five alternatives against the selection criteria (project benefits, public comments, project feasibility) and is recommending the elements which rated the highest. The staff recommended restoration element will restore the longest length of channel and largest area of floodplain resulting in substantial benefits to aquatic and terrestrial habitat and water quality. The recreation elements of the staff recommended alternative maintain the existing settings and corresponding experiences on the east (dispersed) and west (developed) sides of the UTM.

Conservancy staff expect project approval to occur in 2015, contingent upon completion and certification of the final EIR, including response to comments, and the adoption of findings related to each significant effect. Pending availability of funding, construction could begin in 2017.

List of Attachments:

Attachment 1 - Preliminary Staff Recommended Alternative Map

Attachment 2 - Executive Summary from draft EIR/EIS/EIS

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Upper Truckee River and Marsh Restoration Project - Recommended Alternative

Proposed River and Habitat Features

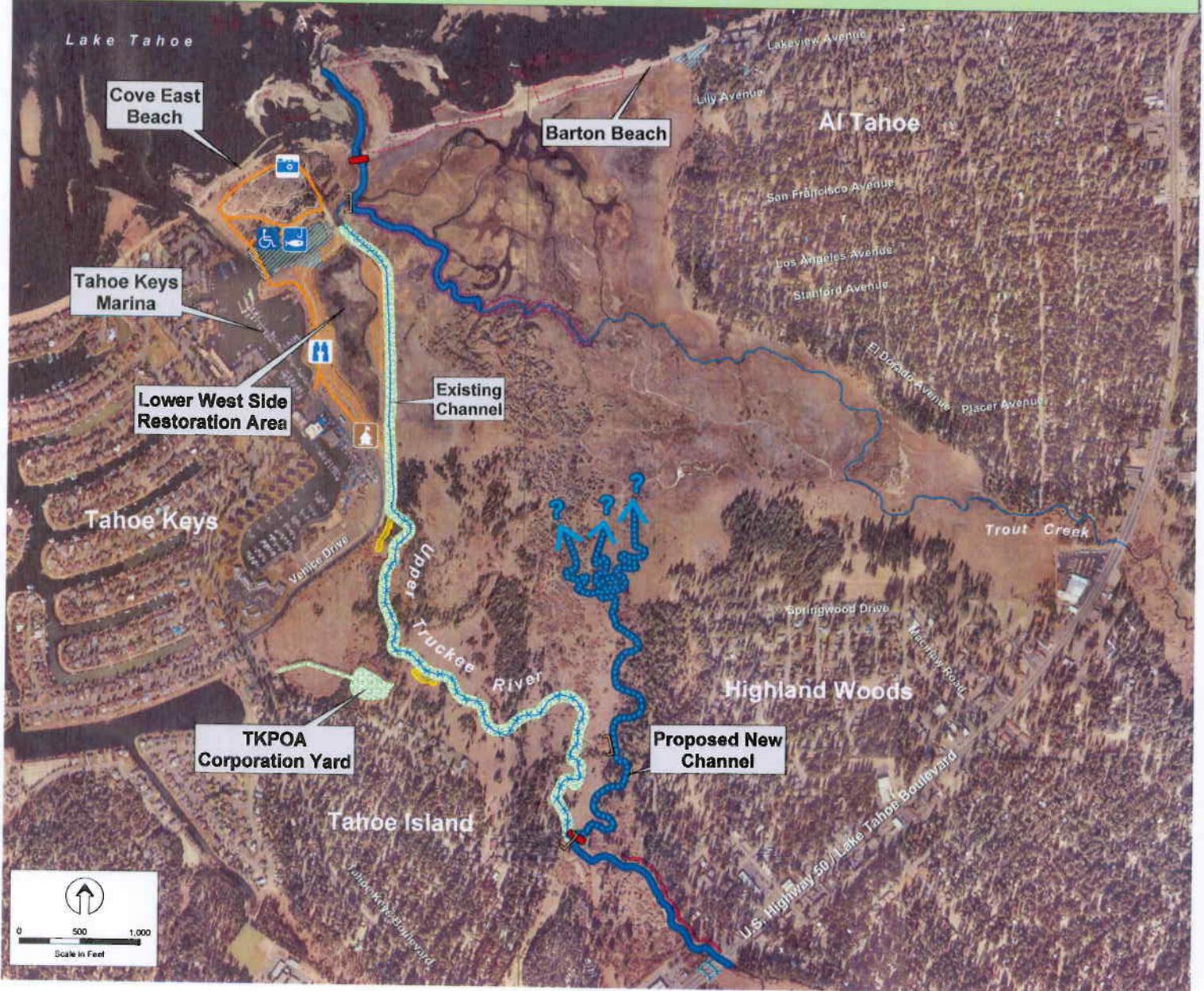
- Lagoon
- Restored Dune
- Restored Meadow
- TYC Restricted Use Area
- Removed Reserve Fill
- Proposed New Channel
- Partial Fill of Existing Channel
- Enhanced Existing Channel

Proposed Engineered Features

- Lateral Grade Control
- Vertical Grade Control
- Bank Protection
- Bulkhead/Levee
- Channel Grade Control and Bank Protection
- Storm Water Treatment Area
- Overbank Conveyance Bridge Modification

Proposed Recreation Features

- Fishing Access
- ADA Accessible
- Kiosk
- Pedestrian Trail
- Viewpoint
- Observation Area



EXECUTIVE SUMMARY

ES.1 PROJECT LOCATION AND SETTING

The California Tahoe Conservancy (Conservancy), U.S. Bureau of Reclamation (Reclamation), and Tahoe Regional Planning Agency (TRPA) are pursuing a restoration project along the most downstream reach of the Upper Truckee River, at the mouth of Lake Tahoe. The Upper Truckee River and Marsh Restoration Project is identified in TRPA's Environmental Improvement Program (EIP) as a project that is necessary to restore and maintain environmental thresholds for the Lake Tahoe Basin (EIP Project #s 560, 650, 981, and 1002). EIP projects are designed to achieve and maintain environmental thresholds that protect Tahoe's unique and valued resources.

The 592-acre study area is located in South Lake Tahoe, California, bounded by U.S. Highway 50 (U.S. 50) and the Highland Woods neighborhood to the south, the Al Tahoe neighborhood to the east, Tahoe Islands/Sky Meadows and Tahoe Keys neighborhoods to the west, and Lake Tahoe to the north. It consists of parcels owned by the Conservancy, the City of South Lake Tahoe (CSLT), the California Department of Transportation (Caltrans), and private landowners. It includes the downstream reaches of Trout Creek and the Upper Truckee River, adjacent wetland (Upper Truckee Marsh) and upland habitats, and the Lower West Side Wetlands Restoration Project site (located in the northwest portion of the study area, just east of the Tahoe Keys Marina).

The primary purpose of the Upper Truckee River and Marsh Restoration Project is to restore natural geomorphic processes and ecological functions along this reach of river while providing recreation access. Four alternative approaches to implementing the proposed project are being considered, along with the No-Project/No-Action Alternative. Depending on which alternative is selected, the proposed restoration project may include a minimum, moderate, or maximum recreation component (described below).

ES.2 OVERVIEW OF THE EIR/EIS/EIS PROCESS

This joint document is an environmental impact report (EIR) prepared on behalf of the Conservancy pursuant to the California Environmental Quality Act (CEQA); an environmental impact statement (EIS) prepared on behalf of the Tahoe Regional Planning Agency (TRPA) pursuant to Article VII of the Tahoe Regional Planning Compact and Chapter 3 of the TRPA Code of Ordinances; and an EIS prepared on behalf of the U.S. Bureau of Reclamation (Reclamation) pursuant to the National Environmental Policy Act (NEPA) and Council of Environmental Quality (CEQ) regulations implementing NEPA.

ES.2.1 CALIFORNIA TAHOE CONSERVANCY

The Conservancy is a lead agency for this project, pursuant to CEQA. As part of its environmental review process, the Conservancy, jointly with TRPA, prepared and circulated a Notice of Preparation (NOP) informing responsible agencies and the public that the project could have a significant effect on the environment, and soliciting their comments. The NOP was filed with the California and Nevada State Clearinghouses and released publicly on October 4, 2006. The NOP identified November 2, 2006 as the closing date for submitting scoping comments. A continuation was filed on March 13, 2007, to extend the closing date for scoping comments to April 30, 2007. A copy is included in Appendix A of this Draft EIR/Draft EIS/Draft EIS (DEIR/DEIS/DEIS). This DEIR/DEIS/DEIS addresses comments received during the NOP scoping period.

Section 21091(a) of the California Public Resources Code requires lead agencies to circulate DEIRs for a minimum of 45 days. However, because this document is also an EIS, pursuant to the TRPA Code of Ordinances and NEPA, it is being circulated for at least 60 days. During this time, the Conservancy is holding a public hearing to present the conclusions of the DEIR/DEIS/DEIS and receive oral comments from the public and responsible agencies. After the 60-day comment period, a Final EIR/EIS/EIS will be prepared that includes

comments received on the DEIR/DEIS/DEIS; written responses to comments that raise environmental issues; a list of all persons, organizations, and agencies commenting on the DEIR/DEIS/DEIS; any necessary revisions to the DEIR/DEIS/DEIS; recommendations on selection of a preferred alternative, and a mitigation monitoring and reporting plan.

ES.2.2 U.S. BUREAU OF RECLAMATION

Reclamation is a lead agency for the project, pursuant to NEPA. The project has received federal funding through Reclamation for the planning phase and may receive funding for implementation. As part of its environmental review process, a Notice of Intent (NOI) was published in the Federal Register on September 5, 2006, informing federal agencies and the public that the project could have a significant effect on the environment, and soliciting their comments. A copy of the NOI is included in Appendix A of this DEIR/DEIS/DEIS.

Pursuant to Reclamation procedures, this DEIR/DEIS/DEIS is being circulated for public comment for at least 60 days. After the 60-day comment period, a Final EIR/EIS/EIS will be prepared as described above under Section ES.2.1.

ES.2.3 TAHOE REGIONAL PLANNING AGENCY

TRPA is a lead environmental review agency for the project, pursuant to Article VII of the Tahoe Regional Planning Compact and the TRPA Code of Ordinances. The NOP prepared by the Conservancy also served as the NOP under the Tahoe Regional Planning code. A copy is included in Appendix A of this DEIR/DEIS/DEIS.

Pursuant to Section 3.7.1 of the TRPA Code of Ordinances, this DEIR/DEIS/DEIS is being circulated for public comment for at least 60 days and a public hearing will be held in front of the Governing Board. After the 60-day comment period, a Final EIR/EIS/EIS will be prepared as described above under Section ES.2.1.

ES.3 SUMMARY DESCRIPTION OF THE PROJECT ALTERNATIVES

ES.3.1 PURPOSE AND NEED AND PROJECT OBJECTIVES

The need for the project originates from the environmental degradation that the Upper Truckee River has historically experienced as a result of human alterations to the river and watershed. The purpose of the proposed action is to restore natural geomorphic processes and ecological functions in this lowest reach of the Upper Truckee River and the surrounding marsh to improve ecological values of the restoration area and help reduce the river's discharge of nutrients and sediment that diminish Lake Tahoe's clarity.

The following basic objectives of the project were developed for the proposed action to meet the purpose and need:

- ▶ Objective 1: Restore natural and self-sustaining river and floodplain processes and functions.
- ▶ Objective 2: Protect, enhance, and restore naturally functioning habitats.
- ▶ Objective 3: Restore and enhance fish and wildlife habitat quality.
- ▶ Objective 4: Improve water quality through enhancement of natural physical and biological processes.
- ▶ Objective 5: Protect and, where feasible, expand Tahoe yellow cress populations.
- ▶ Objective 6: Provide public access, access to vistas, and environmental education at the Lower West Side and Cove East Beach consistent with other objectives.

- ▶ Objective 7: Avoid increasing flood hazards on adjacent private property.
- ▶ Objective 8: Design with sensitivity to the site’s historical and cultural heritage.
- ▶ Objective 9: Design the wetland/urban interface to help provide habitat value and water quality benefits.
- ▶ Objective 10: Implement a public health and safety program, including mosquito monitoring and control.

Five alternatives are being considered and are analyzed at a comparable level of detail in this environmental document. A preferred or proposed alternative has not yet been defined. Following receipt and evaluation of public comments on the DEIR/DEIS/DEIS, the lead agencies will determine which alternative or combinations of features from multiple alternatives will become the preferred alternative. A discussion of the decision will be included in the Final EIR/EIS/EIS.

A summary description of the alternatives is presented below. The detailed description of each alternative is presented in Chapter 2.

ES.3.2 ALTERNATIVE 1. CHANNEL AGGRADATION AND NARROWING (MAXIMUM RECREATION INFRASTRUCTURE)

To restore the river channel and its connection to the floodplain, Alternative 1 would increase channel length and decrease channel capacity. A key element of this restoration would be the use of engineering elements (primarily structures in the channel) to cause sediment deposition that raises the channel bed and decreases channel capacity, and would slightly reduce the capacity of the channel mouth at Lake Tahoe. Alternative 1 would also restore a natural-functioning lagoon in the vicinity of the existing Sailing Lagoon, lagoon and wet meadow conditions at the Trout Creek Lagoon, floodplain functions at the TKPOA Corporation Yard (contingent on TKPOA consent), and sand ridges (“dunes”) at Cove East Beach. In addition, Alternative 1 would remove user-created trails within the “core habitat” area that contains sensitive marsh habitats within the center of the study area.

Under Alternatives 1–4, public access and recreation infrastructure is proposed near the perimeter of the study area. Alternative 1 provides a potential “maximum” level of public access and recreation infrastructure that includes parking, two kiosks, stabilization of an existing river access for boat take-out, observation areas, boardwalks, and a connected system of bicycle paths. Bicycle paths would be Class I/Shared-Use Paths (as described in TRPA and TMPO 2010). Bridges over Trout Creek and the Upper Truckee River (and a boardwalk) would connect the proposed bicycle paths. Bicycle paths would connect to existing regional trails near the study area.

ES.3.3 ALTERNATIVE 2. NEW CHANNEL – WEST MEADOW (MINIMUM RECREATION INFRASTRUCTURE)

To restore the river channel and its connection to the floodplain, Alternative 2 would directly raise the streambed elevation, increase the channel length, and decrease channel capacity. A key element of this restoration would be the excavation of a new river channel that has less capacity than the existing channel. The existing river mouth would be replaced with a new smaller river mouth, similar in size to the historical river mouth prior to dredging. Unlike Alternative 1, the river channel and floodplain restoration elements of Alternative 2 would require two existing stormwater discharge locations to be modified and/or relocated. Alternative 2 also includes all of the other restoration and enhancement elements of Alternative 1.

Alternative 2 would provide a “minimum” level of public access and recreation infrastructure that includes signage, a modified pedestrian trail to Cove East Beach (which would be Americans with Disabilities Act (ADA) accessible), five viewpoints, a boat take-out, and a fishing platform. Except for four viewpoints along the eastern

perimeter of the study area, adjacent to the Al Tahoe neighborhood and the boat take-out near U.S. 50, this infrastructure is located from Venice Drive to Cove East Beach.

ES.3.4 ALTERNATIVE 3. MIDDLE MARSH CORRIDOR (MODERATE RECREATION INFRASTRUCTURE)

To restore the river channel and its connection to the floodplain, Alternative 3 would promote the development, through natural processes, of a new main channel and/or distributary channels in the central portion of the study area. A “pilot” channel, similar to the channel segments constructed under Alternatives 1 and 2, would be constructed from the existing river channel in the southern portion of the study area and connected to historical channels in the center of the study area. No construction would occur in the central or northern portions of the study area, rather, natural processes would be allowed to dictate the flow path(s), bed and bank elevations, and capacities of the channel(s) through the central and northern portions of the study area. The existing river mouth would be retained, but its capacity would be reduced. In addition, by boring two culverts under U.S. 50, an area of isolated floodplain would be reactivated. The river channel and floodplain restoration elements of Alternative 3 would require two existing stormwater discharge locations to be modified and/or relocated. Also, like Alternatives 1 and 2, Alternative 3 would restore a natural-functioning lagoon in the vicinity of the Sailing Lagoon and floodplain functions at the TKPOA Corporation Yard and would enhance areas of “core habitat” and forest. However, Alternative 3 would not restore lagoon and wet meadow conditions at the Trout Creek Lagoon (by removal of existing fill) or dunes at Cove East Beach.

Alternative 3 would provide a “moderate” level of public access and recreation infrastructure that includes three pedestrian trails, a bicycle path, a kiosk, one observation area, six viewpoints, a fishing platform, a boat take-out area, and signage at multiple locations. Similar to Alternative 2, the modified pedestrian trail to Cove East Beach would be ADA accessible, a fishing platform would be installed at the restored lagoon, and stabilization of an existing boat take-out area near U.S. 50. Alternative 3 would include a bicycle path and a pedestrian trail near the Highland Woods neighborhood (and connected to Macinaw Road), and a pedestrian trail adjacent to the Al Tahoe neighborhood, from Capistrano Avenue to East Barton Beach (two segments of which would be boardwalks).

ES.3.5 ALTERNATIVE 4. INSET FLOODPLAIN (MODERATE RECREATION INFRASTRUCTURE)

To restore the river channel and its connection to the floodplain, Alternative 4 would lower bank heights by excavating an inset floodplain along much of the river channel and by localized cut and fill to create meanders in the existing straightened reach. The existing river mouth would be retained and its capacity would not be reduced. Although Alternative 4 would include the enhancement of core and forest habitats, it would not include the restoration of floodplain functions at the TKPOA Corporation Yard, a natural-functioning lagoon in the vicinity of the existing Sailing Lagoon, or dunes at Cove East Beach.

Similar to Alternative 3, Alternative 4 would provide a “moderate” level of public access and recreation infrastructure that includes a bicycle path, two pedestrian trails, a kiosk, stabilization of an existing river access for boat take-out, two observation areas, five viewpoints, and signage at multiple locations. The bicycle path would be adjacent to the Highland Woods neighborhood (and connected to Macinaw Road), and the pedestrian trails would be near the Tahoe Keys, from Venice Drive to Cove East Beach (in part replacing the existing pedestrian trail), and adjacent to the Al Tahoe neighborhood, from Capistrano Avenue to San Francisco Avenue (one segment of which would be a boardwalk).

ES.3.6 ALTERNATIVE 5. NO PROJECT/NO ACTION

Alternative 5 would not provide any actions to restore the river channel and its connection to the floodplain in the study area. This alternative would allow but not facilitate the long-term, passive recovery of the river system via natural processes. The existing river mouth location, size, and bed elevation would continue to adjust to lake levels, streamflows, and sediment loads. The previously eliminated Upper Truckee River–lagoon connection would not be restored, leaving the direct open-water connection between the Tahoe Keys Marina channel, the

Sailing Lagoon, and Lake Tahoe unchanged. The previously leveled area between Cove East Beach and the Sailing Lagoon would not be modified. Alternative 5 would not protect an extensive area of core habitat. However, the Conservancy has been decommissioning some user-created trails, and similar actions would likely continue to be implemented.

Alternative 5 would not take any direct steps to construct additional, extensive public access and recreation infrastructure. However, this alternative would likely maintain existing infrastructure and might result in the construction of some additional, smaller elements (i.e., signage).

ES.3.7 ALTERNATIVES AND ALTERNATIVE ELEMENTS CONSIDERED BUT ELIMINATED FROM FURTHER EVALUATION

Off-site alternatives were eliminated from further evaluation because off-site alternatives would not fulfill the purpose and primary objectives of the project. An important part of the project's purpose and objectives is to restore natural geomorphic processes and ecological functions to improve ecological values of the study area and help reduce the river's discharge of nutrients and sediment that diminish Lake Tahoe's clarity, while still providing access to vistas and environmental education to the public. Off-site actions upstream along the Upper Truckee River or elsewhere in the watershed could reduce the river's discharge of nutrients and sediment but would not substantially improve ecological values of the study area.

While the four preliminary conceptual alternatives were being developed and refined, several facilities were removed from the alternatives, in particular a full-service visitor center and restrooms. As described further below, these facilities were determined to be inconsistent with the project objectives and the principles for alternative development given above.

Initial conceptual plans for Alternative 1 included a full-service visitor center located near the end of Venice Drive. This facility was included to ensure that the maximum amount of feasible recreational infrastructure was considered. However, the need for visitor centers on the south shore has been largely met by the Taylor Creek Visitor Center, the Meyers Visitor Center, and the Explore Tahoe Visitor Center. The creation of a full-service visitor center on the project site would be an unnecessary duplication of services provided in multiple nearby locations. A full-service visitor center would require substantial operations and maintenance costs, which would place an ongoing financial burden on the State while providing services that exist elsewhere. The facility was therefore removed from the alternative.

Furthermore, a full-service visitor center was determined to be inconsistent with the scale and type of use of the site and of the study area as a whole. The site is located adjacent to a residential neighborhood, has a small beach area, and is generally used for dispersed recreation. A visitor center would have the potential to attract an increased number of users seeking an interior interpretive experience. The resulting type and amount of use could negatively affect the existing dispersed uses, which are more compatible with the size and setting of the site in the study area. Therefore, a full service-visitor center has been replaced with a kiosk that is compatible with the size and setting of the study area. In addition, the infrastructure required to support a visitor center would be inconsistent with the limitations of the site.

Initial conceptual plans for Alternatives 1, 3, and 4 also included restrooms at the full-service visitor center and at Cove East Beach. However, refinement of the alternatives reduced the need for these facilities, and it was determined that the reduced need would be met by the restrooms at the Tahoe Keys Marina. In part, the restroom facilities were intended to support a full-service visitor center, which has been removed from the alternatives.