California Tahoe Conservancy
Agenda Items 8a(1)(2)(3)
December 17 - 18, 2015

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

Summary: Staff recommends the following actions related to the Upper Truckee River and Marsh Restoration Project (Project):

- Certification of the Final Environmental Impact Report/ Environmental Impact Statement/ Environmental Impact Statement for compliance with the California Environmental Quality Act (CEQA),
- Adoption of findings related to each significant effect,
- Adoption of statement of overriding considerations, and
- Adoption of the mitigation monitoring and reporting program.

Approval of the Project, including:

- approval of the Preferred Alternative;
- authorization to expend up to $1,538,000 for Project planning and for the purchase of fee or less-than fee property interests on El Dorado County Assessor Parcel Numbers (022-210-37, 023-700-19, 023-821-62, 031-282-05, 031-290-37, 031-290-41);
- authorization to expend up to $10,260,000 for Project working drawings and construction and all steps necessary for Project implementation, including post-Project monitoring, when funding and other considerations permit;
- authorization to apply for Project funding from Federal, State, or other sources;
- authorization to enter into funding agreements and receive reimbursements in support of the Project; and
- authorization to enter into land tenure agreements or other agreements in support of the Project.

Location: South shore of Lake Tahoe, bounded by U.S. Highway 50, Highland Woods, Al Tahoe, Tahoe Island/Sky Meadows, and Tahoe Keys neighborhoods (Attachments 1 and 2)

Fiscal Summary: Up to $12,360,000 in Conservancy expenditures, including $562,000 in previously authorized funding.

Sources of Funds:

- Up to $2,100,000 for planning and property acquisitions from existing appropriations from the Habitat Conservation Fund, Lake Tahoe Conservancy Account, Federal Trust Fund, and Propositions 12, 40 and 84.
- Up to $10,260,000 for working drawings and construction activities from future funding sources.

Recommended Action: Adopt Resolution 15-12-03 (Attachment 3).

Background

The Upper Truckee Marsh (Marsh) is the largest remaining wetland area in the Tahoe Basin. Historically, the Marsh occupied a much larger area along the south shore of Lake Tahoe, encompassing approximately 1,600 acres. Development in the late 1950's through the 1970's drastically altered the Marsh, most notably through the excavation and filling of wetlands to create the Tahoe Keys home pads, marina, and lagoons. This development disturbed approximately 600 acres in the center of the original Marsh, resulting in a large loss of wetland habitat. The Tahoe Keys also fragmented the Marsh habitat into what is now known as Pope Marsh on the west and the Upper Truckee Marsh on the east, and channelized a portion of the Upper Truckee River. The channelized river rarely overflows its banks or inundates the Marsh. As a result, the Marsh no longer serves as highly functional wetland habitat, and most of the river's sediment flows directly into the Lake.

Since January 1988, the Conservancy Board has authorized staff to expend approximately $14 million to acquire several parcels totaling 525 acres in the Marsh. Conservancy staff began planning to restore the Marsh in the early 1990s through studies conducted by the University of California, Berkeley, and University of California, Davis. In 2001, the Conservancy completed the Lower West Side Wetland Restoration Project, an initial phase of wetland restoration involving 12 acres of wetland reconstruction through the removal of 85,000 cubic yards of fill. The Conservancy also relocated and improved a trail, which provides public access to Cove East Beach.

Conservancy staff then began to focus on restoration of the entire Marsh, and with assistance from the Department of General Services (DGS) and a Technical Advisory Group, developed the following objectives to guide Project development:

- Restore natural and self-sustaining river and floodplain processes and functions;
- Protect, enhance, and restore naturally functioning habitats;
- Restore and enhance fish and wildlife habitat quality;
- Improve water quality through enhancement of natural physical and biological processes;
- Protect and where feasible, expand Tahoe yellow cress populations; and
- Enhance the quality of public access, access to vistas and environmental interpretation at the Lower West Side and Cove East Beach consistent with other objectives.

To satisfy requirements under the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), and the Tahoe Regional Planning Agency (TRPA) Code of Ordinances, Conservancy staff led an interagency team to develop a triple environmental document. The Conservancy is the lead agency for the Environmental Impact Report (EIR) required under CEQA, the Bureau of Reclamation (Reclamation) is the lead agency for the Environmental Impact Statement (EIS) required for NEPA, and TRPA is the lead agency for the EIS regarding their code requirements. The Project team combined these three environmental requirements into a single document, referred to as an EIR/EIS/EIS. The Conservancy, acting as the lead agency under CEQA, must certify the EIR/EIS/EIS. Reclamation and TRPA are responsible for taking the appropriate actions for NEPA and TRPA code requirements, respectfully.

The Conservancy released a draft environmental document (Draft EIR/EIS/EIS) for a public review period in 2013 (February 7, 2013 – April 8, 2013). The Conservancy held public meetings on February 27, 2013, March 13, 2013, March 27, 2013, and March 28, 2013 to provide information on the Project and answer questions. The Draft EIR/EIS/EIS analyzed four action alternatives and the no project alternative equally, as no preferred alternative was identified.

Upon completion of the public review period, the Project team developed criteria and a process for identifying a preferred alternative. Conservancy staff identified a preliminary preferred alternative and presented it for informational purposes at the September 2014 Board meeting. Following the September Board meeting, the Conservancy distributed the Preferred Alternative for peer reviews. A technical advisory committee comprised of agency representatives reviewed the Preferred Alternative and provided support for the proposed improvements. A science review

panel, made up of experts from several resource areas, also analyzed the Preferred Alternative. The panelists evaluated the Preferred Alternative based on its consistency with recent scientific research and its rationale as the superior option, and they demonstrated strong overall support for the elements proposed in the Preferred Alternative.

Conservancy staff updated the Board in September 2015 on the status of the Project. On November 19, 2015, the Conservancy posted a technical memorandum regarding flood modeling on its website. The memorandum details recent updates to the flood modeling for the Project and confirms the Draft EIR/EIS/EIS analyses that the Project will not increase flood hazards to adjacent developed areas.

Project Description

The Conservancy aims to restore the natural 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. To achieve these goals, the Preferred Alternative (Attachment 2) includes the following combination of elements from the various alternatives:

- *Alternative 3 for the Restoration Element:* The Preferred Alternative would involve construction of a small pilot channel that would reconnect the current river alignment to historic channels and lagoons. The river would form its own pattern and spread over the expanse of the Marsh, resulting in substantial benefits to habitats, wildlife, and water quality. The abandoned sections of existing river channel would be largely filled to create restored meadow and expanded wetlands. The Sailing Lagoon would be disconnected from the Tahoe Keys Marina and reconnected to the river, improving its ecological and water quality values. Sections of the existing floodplain in the southern Project area will be lowered to raise groundwater levels and improve wildlife habitat. High-flow culverts would be installed under U.S. Highway 50 (U.S. 50) at the river crossing to improve the floodplain just downstream. The Preferred Alternative also includes several ecosystem restoration features that complement the river and floodplain improvements and provide additional resource benefits.

- *Alternative 5 for the Recreation Element, East Side of the Upper Truckee Marsh:* The Preferred Alternative would maintain the current dispersed recreation experience on the east side of the study area. No new recreation infrastructure would be installed and public access would be afforded through the current informal user-

created trail system. The Conservancy would continue to manage and reduce the impacts of recreational use and new trails while maintaining and expanding on-site signage.

- *Alternative 3 for the Recreation Element, West Side of the Upper Truckee Marsh:* The Preferred Alternative would upgrade the recreation infrastructure on the west side of the study area through construction of two small viewing areas, a fishing platform, a kiosk, and a small increase in the length of the improved trail to Cove East Beach. The developed recreation experience would be maintained consistent with natural resource values.

While the project team and the science advisory panel strongly support the Preferred Alternative, it would result in numerous environmental impacts. Some of these impacts, such as impacts to Tahoe yellow cress, can be mitigated. Several construction related water quality and biological impacts, and fisheries impacts, are significant and unavoidable. The long-term benefits to ecosystems and water quality, however, far outweigh the significant and unavoidable impacts, which are expected to be either temporary or short in duration. Conservancy staff are seeking Board certification of the Final EIR/EIS/EIS, adoption of findings of fact and a statement of overriding considerations (Attachment 3, Exhibit A), and adoption of the mitigation monitoring and reporting program (Attachment 3, Exhibit B).

Conservancy staff are seeking Board authorization to expend a total of up to $2,100,000 in State funds, in existing appropriations, to complete the planning and acquisition phases of the Project. Because $562,000 of spending authority remains from past Board authorizations, staff recommends that the Board authorize staff to expend an additional $1,538,000 to support Project planning and acquisitions. Planning expenditures include pre-Project assessments, preliminary plans and draft permit applications, and pre-acquisition activities such as property due diligence, appraisals, preliminary title reports, easement descriptions, maps, and surveys. Funding sources include Propositions 12, 40 and 84, the Habitat Conservation Fund, the Lake Tahoe Conservancy Account, and the Federal Trust Fund. Through a grant from Reclamation, the Conservancy may be reimbursed for up to $400,000 for these total expenditures.

Conservancy staff are also seeking Board authorization to acquire interests in several parcels and enter into land-tenure agreements necessary to complete all proposed Project improvements. The majority of the Project area is located on Conservancy lands, and the Project team developed the Preferred Alternative such that the Project can proceed without rights to work on private lands. However, the Preferred Alternative does include important improvements, such as bank stabilization and floodplain restoration, on lands currently under private ownership or control (El Dorado APNs

022-210-37, 023-700-19, 023-821-62, 031-282-05, 031-290-37, 031-290-41). Acquiring fee or less-than fee interests on these properties will allow this additional work to move forward, substantially increasing the Project benefits and resulting in a more comprehensive Project. Staff has engaged in promising initial communications with the property owners, but future negotiations will be necessary to complete the acquisitions.

To secure adequate funding to construct the Project, Conservancy staff is requesting Board authorization to expend up to $10,260,000 from grants, cooperative agreements, private donations, future appropriations, and other sources. For example, the Bureau of Reclamation awarded a grant to reimburse the Conservancy for up to $1,162,000 in previously authorized planning costs, and may be willing to enter into additional agreements. This agreement and other potential grants and funding agreements may require Conservancy staff to undertake additional monitoring and maintenance activities, and standard administration tasks such as preparation of reimbursement requests and financial reports.

Finally, the Conservancy has been approached by several Basin partners interested in assisting with various activities and elements of the Project, such as resource surveys, cultural monitoring, and interpretative elements. To accommodate these requests, Conservancy staff are seeking Board authorization to enter into participating, operating, management, or other agreements in support of the Project.

Project Budget

The following budget includes the tasks and estimated costs necessary for the planning, acquisition, working drawings and construction phases of the Project. Costs per task may change, but the total amount for all tasks will not exceed $12,360,000. Because the Board has previously authorized expenditures of $562,000 for planning costs, staff are seeking authority to expend an additional $1,538,000 for planning and acquisition costs, and $10,260,000 for working drawings and construction activities.

Planning	
Completion of preliminary plans and permit applications	$400,000
Pre-Project Resource Assessments	150,000
Contingency (10%)	55,000
Acquisition	
Pre-acquisition activities	110,000
Acquisitions	1,250,000
Contingency (10%)	135,000
Planning and Acquisition Total	2,100,000
Previously authorized	562,000
Requested authorization	**1,538,000**
Working Drawings and Construction	
Final design and bid documents	800,000
Regulatory compliance and mitigation	1,050,000
DGS management and inspection	1,000,000
Construction	5,300,000
Post-project effectiveness assessments	400,000
Contingency (20%)	1,710,000
Working Drawings and Construction Total	10,260,000
Requested authorization	**10,260,000**
Total requested authorization	11,798,000
Total expenditures	$12,360,000

Once the project is completed, the Conservancy will undertake a variety of maintenance and management activities. These include maintenance of the improved recreation infrastructure on the west side of the Marsh, and maintenance and adaptive management of the restoration components. For example, the recreation features of the Preferred Alternative include two small viewing areas, a fishing platform, a kiosk, and a small increase in the length of the improved trail to Cove East Beach. Based on a comparison with other Conservancy recreation sites, staff estimates that maintaining these sites is likely to cost about $15,000 annually. While the restoration elements are designed to be self-sustaining over time, staff estimates that about $20,000 will be needed annually to cover these costs, based on other recently completed restoration projects.

Project Implementation

Following Board approval of the Project, staff will work with TRPA and Reclamation on their environmental document approvals. DGS will solicit a Request for Qualifications (RFQ) to hire consultants for preliminary plan engineering, draft permit applications, resource assessments, and DGS will provide contract oversight. Staff will continue pre-acquisition activities and negotiations with property owners to acquire property or property interests in support of the Project. Staff will continue to seek additional funding opportunities and will enter into funding agreements. Staff will also enter into other agreements as necessary to support the Project.

The Project Management and Development Branch of the DGS' Real Estate Services Division will be overseeing the Project. Accordingly, Conservancy staff will work with DGS staff to seek State Public Works Board (PWB) and Department of Finance (DOF) approval to proceed and encumber funds. For example, PWB and DOF must approve the preliminary plans before preparing working drawings and undertaking construction of the Project. Working drawing and construction activities include preparation of final design and bid documents, DGS management and inspection, regulatory compliance, construction, and post-project monitoring.

Following PWB/DOF approval of preliminary plans, DGS will contract for and assist with preparation of working drawings and bid documents, and will later advertise the project for competitive bidding. DGS will manage the construction contract, oversee and inspect construction activities.

The Conservancy and its partners will conduct compliance monitoring and inspections to ensure conformity with mitigation and regulatory requirements, as required by the mitigation monitoring and reporting program and Project permits. Monitoring of Tahoe yellow cress habitat and new plantings is an example of a mitigation monitoring requirement.

Project effectiveness assessments will also be conducted to evaluate the Project's benefits and success in fulfilling the Project objectives. Various habitat, wildlife, and water assessments will be conducted post-Project and analyzed in relation to pre-Project conditions. Groundwater levels and water quality at the mouth of the Upper Truckee River, in addition to other parameters, will provide critical data for pre- and post-Project comparisons.

The Project will proceed according to the following schedule:

EIR/EIS/EIS Certification	2015 - 2016
Preliminary Plans and Acquisitions	2016 - 2017
Working Drawings, Final Permits, Project Bid	2017 - 2018
Construction	2019 - 2022

Project Evaluation

As described above and further detailed below, the Upper Truckee River and Marsh Restoration Project is the largest single ecosystem restoration effort in the Lake Tahoe Basin and would restore Lake Tahoe's largest wetland habitat, decrease fine sediment and nutrient loadings that damage the lake's famed clarity, and provide a variety of environmental and recreational benefits. The Project meets the criteria and objectives of the Conservancy's Wildlife Habitat Enhancement, Stream Environmental Zone Restoration, and Public Access and Recreation programs, several TRPA thresholds, and the Lake Tahoe Total Maximum Daily Load (TMDL). The Project will provide significant benefits to wildlife habitat and water quality, and build upon the cumulative benefits of nearby restoration projects.

The Project will restore natural river and floodplain processes and result in significant benefits to the rare and threatened habitats that remain. River flows will spread over the vast expanse of the marsh and rewet the meadow and marsh surfaces, and groundwater levels will rise, causing the Marsh vegetation to thrive. The restored channel configuration will promote development of lagoons and standing water habitat similar to the historic condition, allowing various fish and wildlife species to prosper there once again.

The Project will restore and enhance over 500 acres of meadow, riparian, and aquatic habitats. It will significantly contribute to attainment of several of the TRPA's ecological environmental thresholds, including substantial progress towards regional stream environment zone, wildlife, vegetation, and fisheries goals. The Project will also stabilize over 10,000 linear feet of river channel and reconnect approximately 500 acres of floodplain. These improvements will result in substantial reductions to channel erosion through creation of a stable and appropriately sized channel network, lowering of floodplain surfaces, and stabilizing unstable riverbanks.

The Marsh, due to its location at the mouths of the Upper Truckee River and Trout Creek, presents an unparalleled opportunity to naturally filter water from the largest two watersheds in the Tahoe Basin. Upper Truckee flows once spread over the vast

expanse of the Marsh, settling and filtering sediment from the river before it entered Lake Tahoe. The river now rarely overtops its banks, as large flood events currently flow directly to the lake through an oversized and straightened channel. The Project will restore the natural filtration capacity of the Marsh by eliminating the oversized channel and spreading flows over the meadow and marsh surfaces. This restored filtration process will improve water quality and lake clarity for generations to come, while restoring sustainability and adaptability to the Marsh and the many functions it provides.

Consistency with the Conservancy's Enabling Legislation

This Project is consistent with the Conservancy's enabling legislation. Specifically, Government Code section 66907 authorizes the Conservancy to acquire interests in real property for the purposes of protecting the natural environment. Government Code section 66907.8 authorizes the Conservancy to lease, rent, sell, exchange, or otherwise transfer any interest in real property or interest therein for management purposes.

Under Government Code section 66907.10 the Conservancy is authorized to improve and develop acquired lands for a variety of purposes, including protection of the natural environment. Under Government Code section 66906.8, the Conservancy is authorized to select and hire private consultants or contractors to achieve these purposes. Government Code section 66908 authorizes the Conservancy to receive reimbursements and other funds from public agencies.

Under Government Code section 66907.9, the Conservancy is authorized to initiate, negotiate, and participate in agreements for the management of land under its ownership or control with local public agencies, state agencies, federal agencies, nonprofit organizations, individuals, corporate entities, or partnerships, and to enter into any other agreements authorized by state or federal law.

Compliance with the California Environmental Quality Act (CEQA)

A CEQA EIR is a detailed informational document that analyzes a project's potential significant effects, and identifies mitigation measures and reasonable alternatives to avoid or reduce project effects. The primary purpose of an EIR is to inform decision makers and the public about a project's significant environmental effects and ways to reduce them. EIRs also demonstrate to the public how the environment is considered in the decision-making process, and they ensure political accountability by disclosing to citizens the environmental values held by their elected and appointed officials.

The lead agency must prepare a final EIR prior to approving a project. Final EIRs include various components, but responses to comments received during the public comment period are a key part of the document. The lead agency certifies the final EIR and issues its findings, which describe each significant effect and the mitigation measures incorporated to reduce the effects. Should significant and unavoidable impacts remain after mitigation, a statement of overriding considerations is prepared. The statement of overriding considerations explains in detail why the benefits of the project outweigh the unavoidable, adverse environmental impacts, and why the agency is willing to accept those impacts. The mitigation monitoring and reporting program documents compliance with Project mitigation measures during implementation by designating responsible parties for monitoring and reporting on completion of mitigation measures.

The Final EIR/EIS/EIS identifies the Preferred Alternative as presented to the Board in September 2014. The Final EIR/EIS/EIS includes the updated flood modeling results, which confirm the draft document's conclusion that the Preferred Alternative does not result in increased flood risks to developed areas. The Final EIR/EIS/EIS also includes responses to comments received on the Draft EIR/EIS/EIS. Responses to comments can be found in Chapters 3 and 4 and Appendix D of the Final EIR/EIS/EIS.

The Conservancy, acting as the lead agency under CEQA, prepared an Initial Study and EIR/EIS/EIS for the Project (Attachment 4). A copy of the EIR/EIS/EIS is provided to the Board under separate cover and is available for public review at the California Tahoe Conservancy office, 1061 Third Street, South Lake Tahoe, CA.

The Conservancy filed a Notice of Preparation (NOP) with the California State Clearinghouse on October 4, 2006. The Clearinghouse circulated these documents to responsible agencies for a review period that ended on November 2, 2006. A continuation was filed on March 13, 2007 to extend the closing date for scoping to April 30, 2007. The Conservancy also publicly circulated the NOP for the project to present an overview of the proposed project and alternatives, list the issues anticipated in the EIR, and provide contact information. This NOP was mailed to organizations and individuals who participated in earlier public planning processes, to agencies and organizations that could be affected by the project, and to property owners within 300 feet of the study area, and was published in the *Tahoe Daily Tribune* on October 6, 2006. The Conservancy held public scoping meetings on October 11, 24, and 25, 2006 to provide information on the project, answer questions, and offer an additional opportunity for interested parties to provide written comments. A scoping report documented the process and outcome of the scoping meetings.

The IS/EIR and a Notice of Availability (NOA) were submitted to the State Clearinghouse (Number 2007032099) on February 7, 2013. The Clearinghouse circulated these documents to responsible agencies for a review period that ended on April 8, 2013. The Conservancy also publicly circulated the NOA for the Project, announcing the public review period for the IS/EIR (February 7, 2013 – April 8, 2013) and providing information regarding where the documents were available for review. The NOA was also mailed to organizations and individuals who participated in earlier public scoping processes, to agencies and organizations that could be affected by the Project, and to property owners within 300 feet of the Project area. The Conservancy held public meetings on February 27, 2013, March 13, 2013, March 27, 2013 and March 28, 2013 to provide information on the Project and answer questions.

Staff recommends that the Board review the EIR/EIS/EIS; make the appropriate CEQA findings pursuant to CEQA Guidelines, section 15091; make a statement of overriding considerations pursuant to CEQA Guidelines, section 15093; adopt a mitigation monitoring reporting program pursuant to CEQA Guidelines, section 15097; and approve the Project.

If the Board authorizes the proposed Project, staff will file an Notice of Determination with the State Clearinghouse pursuant to CEQA guidelines section 15094 (Attachment 5).

As described above, TRPA and Reclamation must take their appropriate actions on the environmental document. Reclamation will likely issue a Record of Decision on the NEPA EIS.

List of Attachments:

Attachment 1 – Project Location Map
Attachment 2 – Preferred Alternative
Attachment 3 – Resolutions 15-12-03
Attachment 4 – CEQA EIR/ NEPA EIS/ TRPA EIS (On attached CD)
Attachment 5 – Notice Of Determination

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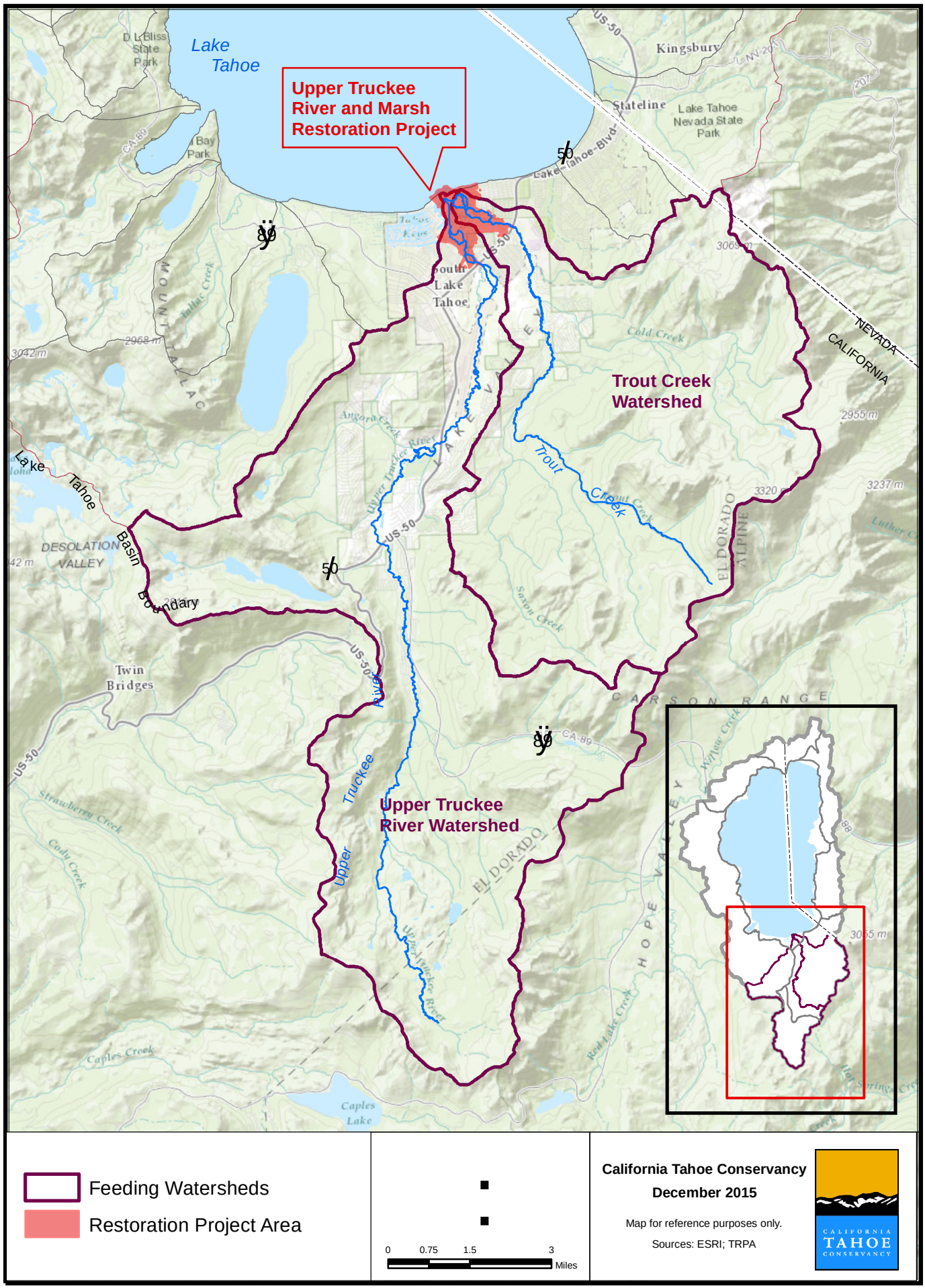
Attachment 1

Project Location



ATTACHMENT 2

Preferred Alternative

Proposed Features

River and Habitat

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

Engineered

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

Recreation

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

California Tahoe Conservancy

December 2015

Map for reference purposes only.

Sources: TRPA; CTC

0 0.05 0.1 0.2 0.3 Miles

California Tahoe Conservancy
Agenda Item 8a
December 18, 2015

RESOLUTION EXHIBIT A

CEQA Findings of Fact
Regarding the Final Environmental Impact Report for the
Upper Truckee River and Marsh Restoration Project
State Clearinghouse No. 2007032099

CEQA SECTION 21081 FINDINGS OF FACT

The Conservancy has reviewed the Final EIR/EIS/EIS for the project, consisting of the Responses to Comments on the Draft EIR/EIS/EIS and revised sections of the Draft EIR/EIS/EIS. The Conservancy has also reviewed the Monitoring Mitigation and Reporting Program (MMRP), and considered the public record on the project (references provided in Chapter 7, "References Cited," in the Draft EIR/EIS/EIS and Chapter 7, "References Cited" in the Final EIR/EIS/EIS).

Pursuant to Public Resources Code section 21081, for each significant effect identified in the Draft EIR/EIS/EIS, the Conservancy must make one or more findings. The Conservancy hereby makes the following findings regarding the significant effects of the proposed project, pursuant to Public Resources Code section 21081 and section 15091 of the State CEQA Guidelines.

A. BIOLOGICAL RESOURCES (SECTION 3.4 IN THE DRAFT EIR/EIS/EIS)

IMPACT 3.4-3 DAMAGE TO OR MORTALITY OF SPECIAL-STATUS PLANTS RESULTING FROM CONSTRUCTION ACTIVITIES

Construction activities associated with river restoration at the mouth of the Upper Truckee River would occur in or close to Tahoe yellow cress habitat that could be occupied by Tahoe yellow cress. Thus, these construction activities could damage or kill Tahoe yellow cress plants, which are a listed and protected species under the California Endangered Species Act and the TRPA Code of Ordinances. This impact would be **potentially significant**.

The Conservancy adopted the following mitigation measure that would reduce to less-than-significant levels the project's short-term impacts to Tahoe yellow cress.

Mitigation Measure 3.4-3: Conduct Protocol-Level Preconstruction Surveys and Avoid or Mitigate Impacts on Tahoe Yellow Cress Plants.

To avoid or mitigate potential adverse effects on Tahoe yellow cress (TYC) plants (stems) resulting from construction activities, the following actions will be implemented:

(A) A qualified botanical monitor familiar with the vegetation of the Tahoe Basin and identification of TYC will conduct a focused preconstruction survey for TYC in all beach habitat where construction-related ground disturbance could occur during that year. Surveys will be conducted between June 15 and September 30, when TYC is clearly identifiable, and will follow CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Plant Populations and Natural Communities* (CDFW 2009). Surveys will 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 will be documented in a letter report to the Conservancy and TYC Adaptive Management Working Group (AMWG) that will become part of the project environmental record, and no further actions will be required.

(B) If TYC stems are documented during the survey in areas potentially disturbed by construction activities, they will be clearly identified in the field, and if feasible, protected from impacts associated with construction activities. Protective measures will include flagging and fencing of known stem locations and avoidance. If feasible, no construction-related activities will be allowed in areas fenced for avoidance, and construction personnel will be briefed about the presence of the stems and the need to avoid effects on the stems. If all TYC stems are avoided, no further actions will be required.

(C) If avoidance of all TYC plants is not feasible, the Conservancy, in coordination with the TYC AMWG, will delineate and fence a mitigation area within the study area, excavate and translocate potentially affected stems, plant additional nursery-grown TYC plants, and monitor and adaptively manage the mitigation area, as described below. The mitigation area will extend from the inland edge of suitable habitat to the location on the edge of Lake Tahoe under the lowest possible lake elevation. If deemed necessary during monitoring, the Conservancy will either relocate or enlarge the mitigation area to achieve mitigation goals.

All potentially affected stems will be excavated and translocated to the mitigation area. Translocation will follow, as closely as possible, protocols that have been shown to be effective and described by Stanton and Pavlik (2009), and all translocated stems will be marked and/or mapped to facilitate monitoring. Translocation will be limited to no more than 10 percent of the suitable habitat within the project area. If project activities would impact more than 10 percent of the suitable habitat, then design or construction techniques will be adjusted to ensure no more than 10 percent of the suitable habitat would be affected by translocation.

Additional outplanting of container-grown nursery TYC plants to the mitigation area will also occur. Outplanting will occur at a rate of two plants for every one transplanted stem, for a total mitigation rate of 3:1, for combined translocated stems and outplanted container-grown plants. Outplanting of container-grown plants will follow, as closely as possible, protocols that have been shown to be effective as described by Stanton and Pavlik (2009), and all outplanted plants will be marked and/or mapped to facilitate monitoring.

TYC stem translocation and outplanting of container-grown plants will be followed by active monitoring and adaptive management for the remainder of the growing season in which translocation and outplanting occurs, and the following two growing seasons. Monitoring and adaptive management will include the following actions:

(1) For the remainder of the growing season in which stem translocation and outplanting or container-grown plants occurs, a qualified botanical monitor familiar with the identification of TYC shall inspect each translocated or outplanted stem at least once per month and record phenology (i.e., life cycle stage) and condition. The Conservancy will consult with the AMWG concerning appropriate measures if significant mortality or vandalism is observed. Additional outplanting will depend on the timing of the observed mortality and the level of the lake.

(2) For the two growing seasons following the season in which stem translocation and container-grown plant outplanting occurred, success of mitigation efforts will be evaluated based on the ratio of TYC stems occurring within the mitigation area. Immediately following translocation and outplanting activities, a qualified botanical monitor shall conduct a complete inventory of TYC stems in the mitigation area.

During each of the two growing seasons following the season in which translocation and outplanting occurs, a qualified botanical monitor shall conduct a complete inventory of the number of TYC stems present in the mitigation area. Surveys will be conducted when TYC is clearly identifiable. If the ratio of stems in the mitigation area is less than the ratio recorded immediately following translocation and outplanting activities, then the Conservancy will conduct additional outplanting of container-grown TYC plants to achieve at least the same ratio of TYC stems in the mitigation area. If deemed necessary based on monitoring results, the Conservancy will either relocate or enlarge the mitigation area to achieve mitigation goals.

The TYC AMWG and CDFW are continuing to develop a standardized monitoring protocol for TYC. Therefore, in an effort to be consistent with the developed protocol, before project implementation, the Conservancy will coordinate with the TYC AMWG and CDFW to finalize the monitoring protocol for evaluating mitigation efforts.

Implementation of Mitigation Measure 3.4-3 would reduce Impact 3.4-3 to a less-than-significant level. TYC plants that are present in areas of potential ground disturbance would be identified before construction, and impacts on those plants would be avoided whenever feasible. If avoidance is not feasible, affected TYC plants would be mitigated at a rate of 3:1, and active monitoring and adaptive management would ensure the success of mitigation actions. These mitigation actions will reduce the impact to a **less-than-significant** level because the monitoring, adaptive management, and plantings will ensure success of TYC populations and individuals at the project site.

The Conservancy finds that Mitigation Measure 3.4-3 has been required in, or incorporated into, the project and that implementation of this mitigation measure will reduce the project's short-term impacts to Tahoe yellow cress to **less-than-significant levels**.

IMPACT 3.4-6 SHORT-TERM DISTURBANCE OF SENSITIVE COMMUNITIES (JURISDICTIONAL WETLANDS, RIPARIAN VEGETATION, AND SEZ) RESULTING FROM CONSTRUCTION ACTIVITIES

Part or all of areas mapped as open water, lagoon, willow scrub-wet meadow, montane meadow, or lodgepole pine forest in the study area potentially qualify as jurisdictional wetlands or are considered riparian vegetation or a Stream Environment Zone (SEZ). As described in Environmental Commitment 5, "Prepare and Implement Effective Construction Site Management Plans" and Environmental Commitment 6, "Obtain and comply with

Federal, State, Regional, and Local Permits", regulatory agencies require that project designs minimize the disturbance area to the smallest area possible to construct project improvements. Nonetheless, approximately 18 acres of sensitive communities would be disturbed temporarily during construction. This will result in short-term disturbance of sensitive communities, adversely affecting sensitive ecosystem functions and the services that are products of these functions, including sediment retention and the provision of habitat for common and sensitive plant and wildlife species. This impact would be **potentially significant**.

The project disturbance area is designed such that it is the absolute minimum required to construct the improvements, per existing agency regulations. Therefore, this impact cannot be mitigated to a lesser level of significance. In addition, potential alternatives which meet the project objectives also result in significant disturbances of these sensitive communities, and these alternatives would not result in substantial reduction or avoidance of this impact.

The Conservancy finds that there are no other feasible mitigation measures or alternatives that could be adopted to reduce the impact to a less-than-significant level, and therefore the impact will be **significant and unavoidable.**

IMPACT 3.4-8 DISRUPTION OF WILDLIFE HABITAT USE AND LOSS OF WILDLIFE RESULTING FROM CONSTRUCTION ACTIVITIES

Construction activities could cause short-term disruption of wildlife use of the study area, cause the loss of wildlife, or both. Wintering bald eagle use of the study area does not occur during the construction season and thus would not be disrupted. However, construction of the restoration, recreation, public access, and habitat protection elements of the project could result in the harm or loss of individuals or nests or result in substantial disruptions to nesting attempts or other activities by three special-status bird species (yellow warbler, willow flycatcher, and long-eared owl) and would affect one special-status guild (waterfowl). It also could result in abandonment or removal of active roost sites for, or harm or loss of, hoary bat or western red bat. This impact would be **potentially significant**.

The Conservancy adopted the following mitigation measures to reduce the project's construction impacts to wildlife.

Mitigation Measure 3.4-8A: Conduct Preconstruction Surveys for Nesting Special-Status Birds (Yellow Warbler, Willow Flycatcher, Waterfowl, and Long-Eared Owl), and Implement Buffers If Necessary.

For construction activities that would occur in suitable habitat during the nesting season (April 1 through August 31), a qualified wildlife biologist will conduct focused surveys for active nest sites of the yellow warbler, willow flycatcher, waterfowl, and long-eared owl. The biologist will be able to identify Sierra Nevada bird species audibly and visually. The conduct of these surveys will conform to the following guidelines:

- **Yellow warbler, waterfowl, and long-eared owl.** Focused surveys for yellow warbler, waterfowl, and long-eared owl nests will be conducted by a qualified wildlife biologist within 14 days before construction activities are initiated each construction season. The preconstruction survey for yellow warbler, waterfowl, and long-eared owl nests will be conducted using a nest-searching technique appropriate for the species. For yellow warbler, an appropriate technique will involve first conducting point counts in suitable riparian habitat

to determine occupancy, followed by nest searching if the species is present. For long-eared owl, surveys will involve tape playbacks of recorded long-eared owl calls.

- **Willow Flycatcher.** For construction activities initiated in suitable breeding habitat for the willow flycatcher after May 31, a preconstruction survey for nesting willow flycatchers will be conducted each construction season. The survey will follow *A Willow Flycatcher Survey Protocol for California* (Bombay et al. 2003). The protocol requires a minimum of two survey visits to determine presence or absence of the willow flycatcher: one visit during survey period 2 (June 15–25) and one during either survey period 1 (June 1–14) or period 3 (June 26–July 15).

If active yellow warbler, willow flycatcher, or long-eared owl nests are located during the preconstruction surveys, the biologist will notify TRPA and CDFW. If a yellow warbler or willow flycatcher nest is located, construction will be avoided within 500 feet of the nest (or at a distance directed by CDFW) to avoid disturbance until the nest is no longer active based on monitoring. If an active long-eared owl nest is located, construction within 0.25 mile of the nest site (or at a distance directed by CDFW) will be delayed until the nest is no longer active based on monitoring.

If active waterfowl nests are located during preconstruction surveys, the biologist will notify TRPA and CDFW, and construction will be avoided within 500 feet of active nests (or at a distance directed by CDFW).

Mitigation Measure 3.4-8B: Conduct Preconstruction Surveys for Special-Status Bats, Avoid Removal of Important Roosts, and Implement a Limited Operating Period If Necessary.

Bat surveys will be conducted by a qualified wildlife biologist within 14 days before any tree removal or clearing each construction season. Locations of vegetation and tree removal or excavation will be examined for potential bat roosts. Potential roost sites identified will be monitored on two separate occasions for bat activity, using bat detectors to help identify species. Monitoring will begin 30 minutes before sunset and will last up to two hours at any potential roost identified. Removal of any significant roost locations discovered will be avoided. If avoidance is not feasible, roost sites will not be disturbed by project activities until September 1 or later, when juveniles at maternity roosts are able to fly.

With the Mitigation Measures 3.4-8A and 3.4-8B, the loss of individuals, nests, or roost sites of special-status wildlife species during construction would be substantially reduced. However, because waterfowl nest near the river mouth, Sailing Lagoon, Trout Creek Lagoon, and elsewhere within the study area, implementing buffers or a limited operating period that would avoid substantial effects on waterfowl nesting may not be feasible. The Conservancy finds that Mitigation Measures 3.4-8A and 3.4-8B have been required in the project and that they will reduce some, but not all, of the project's impacts related to the disruption of wildlife habitat use and loss of wildlife resulting from construction activities. In addition, potential alternatives which meet the project objectives also result in significant construction-related disturbance to wildlife, and these alternatives would not result in substantial reduction or avoidance of these impacts.

The Conservancy finds that there are no other feasible mitigation measures or alternatives that could be adopted to reduce these remaining impacts to less-than-significant levels. Therefore, this impact would be **significant and unavoidable**.

B. FISHERIES (SECTION 3.5 IN THE EIR/EIS/EIS)

IMPACT 3.5-4 LONG-TERM DISRUPTION OF FISH PASSAGE/MIGRATION

Fish passage between Lake Tahoe and the Upper Truckee River could be impeded in the absence of a defined main channel or channels across the Marsh connecting the river mouth to the upstream river. Passage impairments under the Preferred Alternative (Alternative 3) would be significant if the duration of impairment would equal or exceed the minimum life span of a species, thereby affecting reproductive success of an entire cohort (age group) of whitefish. A defined low-flow channel or channels would likely form after a few years, allowing sufficient passage through the river.

During spring or winter flow events, when flow is routed through the pilot channel onto the meadow, juvenile and adult fish moving downstream during these periods would be at risk of being stranded on the marsh surface. These conditions would persist until a channel or channels have formed to reconnect the river to the lake. Because of uncertainties about the period of time required for formation of a channel suitable for upstream fish passage and downstream dispersal, this alternative has the potential to disrupt whitefish migrations for a number of migration seasons, and it would increase the risk from stranding for downstream moving fish in the river. Therefore, the long-term impact on these fish populations in the Upper Truckee River and from Lake Tahoe would be **potentially significant**.

Given the design of the Preferred Alternative (Alternative 3) (i.e., natural formation of channels downstream of the proposed "pilot channel"), guaranteed fish passage at all times would not be possible. Construction of a low-flow channel suitable for fish passage through the Marsh would not be possible because natural processes would dominate the channel dynamics and configurations. Even if a low-flow continuous channel is excavated, natural geomorphic processes may fill the excavated channel with bed load material due to natural sediment transport and deposition, potentially rendering the excavated channel inadequate for fish passage. However, potential fish passage blockages are only anticipated to occur during specific conditions and for short durations, as geomorphic and hydrologic processes will reestablish a continuous channel network once annual flows and associated sediment transport capabilities return following fall and winter precipitation events.

In addition to the barriers potentially created by the undefined natural channel network, there is a chance that the mouth of the Upper Truckee River and/or Trout Creek may close off to the lake at times as a result of natural barrier beach processes. Such a barrier has likely built up in the historic past during periods of time (months, seasons, or even years) when the balance of flows and energy from the land/marsh side was low relative to the width of the beach ridge and the height and energy of the lake's wave action. Complex interactions may occur in the future, especially given the underlying trends of beach erosion and the potential counteracting effects from climate change. It is not possible to predict the locations, duration, or extent of potential river or creek mouth closures throughout the future life of the project. However, these closures are expected to only occur during low flow conditions and are likely to be relatively short term in nature, as annual precipitation events and snow melt flows are expected to be capable of reopening the river and creek mouths.

Because the intent and purpose of the Preferred Alternative is to restore natural river/marsh processes, these natural processes are expected to control channel formation dynamics and the associated channel configurations. Alterations to the design (construction of a dominant single thread channel) or future management actions (artificially maintaining passage to the lake) are not feasible mitigation because they would be dominated by

natural processes which may not maintain connected channels and fish passage. In addition, these potential actions would negate and contradict the intention and benefits of this project. As such, no feasible or acceptable mitigation would be possible to reduce this impact. Other project alternatives may not present the same potential for significance related to this impact, however the other alternatives would not achieve, to extent that the Preferred Alternative would, the fundamental project purpose related to environmental benefits and natural geomorphic functionality.

The Conservancy finds that there are no feasible mitigation measures or alternatives that could be adopted to reduce the project's impacts related to the long-term, but short duration, disruption of fish passage/migration to less-than-significant levels. Therefore, this impact would be **significant and unavoidable**.

C. HUMAN HEALTH/RISK OF UPSET (SECTION 3.4 IN THE EIR/EIS/EIS)

IMPACT 3.7-2 POTENTIAL HUMAN HEALTH HAZARDS FROM EXPOSURE TO EXISTING ON-SITE HAZARDOUS MATERIALS

The only portion of the study area in which hazardous materials are currently used and stored is the Tahoe Keys Property Owners Association (TKPOA) Corporation Yard. Hazardous materials are stored in on-site storage containers or within one of two storage sheds. Hazardous materials stored on-site are confined to common hazardous substances, including fuel, lubricants such as oil, and solvents such as paint. In the past, although applicable regulations may have been followed, spills of hazardous materials may have occurred and contaminated soil at the TKPOA Corporation Yard.

Movement of stored hazardous materials and fill materials from the TKPOA Corporation Yard would occur during construction of restoration features; consequently, construction workers might be exposed to existing on-site hazardous materials at the corporation yard. Environmental Commitment 9, "Develop and Implement a Construction Management Program;" includes general guidance regarding the safe handling of hazardous materials, however, potential hazards to human health from exposure to on-site hazardous materials may still result. Therefore, this impact would be **potentially significant**.

Mitigation Measure 3.7-2A: Prepare and Implement a Health and Safety Plan and Provide Qualified Oversight of Fill Removal Related to Excavation Activities at the Corporation Yard.

The Conservancy and their contractor(s) will develop and implement a site-specific health and safety plan (HASP) that clearly notifies all workers of the potential to encounter hazardous materials during demolition and construction activities. The HASP will identify proper handling and disposal procedures for contaminants expected to be on-site as well as maps and phone numbers for local hospitals and other emergency contacts. All protocols outlined in the HASP will be complied with throughout project implementation.

Any stored hazardous materials present in the study area will be removed and disposed at appropriately permitted locations prior to construction. A qualified professional (e.g., geologist or engineer) will oversee fill excavation activities and abandoned UST tank removal at the Corporation Yard in order to properly identify any potentially contaminated soils that may be present. Excavation of the UST must comply with El Dorado County UST Ordinance No. 4332. If contaminated soils are found, implement Mitigation Measure 3.7-2b.

UST removal will include measures that ensure safe transport and disposal methods. Remediation actions, if necessary, will be defined, in consultation with El Dorado County Environmental Management Division, (EDCEMD) and Lahontan Regional Water Quality Control Board (RWQCB), and implemented during construction.

Mitigation Measure 3.7-2B: Notify Appropriate Federal, State, and Local Agencies if Contaminated Soils Are Identified, and Complete Recommended Remediation Activities.

To reduce health hazards associated with potential exposure to hazardous substances, the Conservancy would implement the following measures if necessary:

The Conservancy and its contractor(s) will notify the appropriate federal, state, and local agencies if evidence of previously undiscovered soil or groundwater contamination (e.g., stained soil, odorous groundwater) is encountered during construction activities. Any contaminated areas will be cleaned up in accordance with recommendations made by EDCEMD, Lahontan RWQCB, DTSC, or other appropriate federal, state, or local regulatory agencies, as generally described above.

The Conservancy will prepare a site plan for remediation activities appropriate for proposed land uses, including excavation and removal of on-site contaminated soils, and needed redistribution of clean fill material on the study area. The plan will include measures that ensure the safe transport, use, and disposal of contaminated soil and building debris removed from the site. If contaminated groundwater is encountered during site excavation activities, the construction contractor will report the contamination to the appropriate regulatory agencies, dewater the excavated area, and treat the contaminated groundwater to remove contaminants before discharge into the sanitary sewer system. The construction contractor will be required to comply with the plan and applicable federal, state, and local laws. The plan will outline measures for specific handling and reporting procedures for hazardous materials and disposal of hazardous materials removed from the site at an appropriate off-site disposal facility.

The Conservancy will prepare and implement a health and safety plan specific to the TKPOA Corporation Yard and provide oversight by qualified and appropriate entities for all activities related to potentially hazardous materials. These activities include the removal and remediation of any contaminated soil that may be encountered along with the removal of the UST at the TKPOA Corporation Yard. Because these mitigation measures will be implemented to provide a high level of site-specific safety and oversight when risk of hazardous materials is present, the potential for exposure to hazardous materials will be substantially reduced. Therefore, implementation of Mitigation Measure 3.7-2a and 3.7-2b will reduce Impact 3.7-2 to a **less-than-significant** level.

The Conservancy finds that Mitigation Measures 3.7-2a and 3.7-2b have been required in, or incorporated into, the project and that implementation of these mitigation measures will reduce the project's potential hazards to human health from exposure to on-site hazardous materials to **less-than-significant levels**.

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D. GEOMORPHOLOGY AND WATER QUALITY (SECTION 3.9 IN THE FINAL EIR/EIS/EIS)

IMPACT 3.9-1 SHORT-TERM RISK OF SURFACE WATER OR GROUNDWATER DEGRADATION DURING CONSTRUCTION

Implementing the project would involve substantial construction activities along or in the channel of the Upper Truckee River, along the Tahoe Keys Marina, and near the shoreline of Lake Tahoe. Although the project includes temporary Best Management Practices (BMPs), short-term risks of water quality degradation could occur in each summer construction season or over the intervening winters. Grading would result in ground disturbance within sensitive lands and increase the potential for erosion and sediment transport. Accidental releases of hazardous materials or other pollutants could affect surface or subsurface waters. Implementing the project could result in short-term turbidity exceeding the Lahontan Basin Plan's stringent turbidity standard (10 percent above background levels). This impact would be **potentially significant**.

As described in Environmental Commitment 5, "Prepare and Implement Effective Construction Site Management Plans," and Environmental Commitment 6, "Obtain and Comply with Federal, State, Regional, and Local Permits", regulatory agencies require that water quality protection measures be incorporated into project designs and construction activities. However, the potential for at least short-term violations of the Basin Plan's stringent water quality standard for turbidity would still exist. The nature of construction activities required to build the project, and the location of the project site in sensitive environments adjacent to the lake, result in a risk of Basin Plan water quality violations which cannot be avoided or mitigated. The other project alternatives which succeed in meeting the project objectives also result in this potentially significant impact to water quality.

The Conservancy finds that there are no feasible mitigation measures or alternatives that could be adopted to reduce short term water quality impacts to less-than-significant levels. Because the potential to exceed the stringent Basin Plan standards cannot be avoided or mitigated, Impact 3.9-1 will be **significant and unavoidable**.

IMPACT 3.9-2:SHORT-TERM, PROJECT-RELATED RISK OF SURFACE WATER DEGRADATION FOLLOWING CONSTRUCTION

Implementing the project would require completion of in-channel construction activities. The biotechnical streambank treatments and other revegetated areas, such as the backfilled channel segments, could expose areas of existing remnant channels to vulnerability during a flood flow within the first few years following construction. Additionally, the project expects natural geomorphic erosion processes to reestablish one or more Upper Truckee River low-flow or overflow channels within the main marsh after construction of the pilot channel. Therefore, implementing the project could result in short-term exceedance of the Basin Plan's stringent turbidity standard (10 percent above background levels) after the construction phase. This impact would be potentially **significant**.

Mitigation Measure 3.9-2: Adaptively Manage Potential Flood Disturbance in the Interim Period after Construction.

The Conservancy will develop and implement an adaptive management plan focused on the short-term water quality degradation that could result within the first five years after construction. The plan will identify specific data collection and monitoring protocols, describe decision-making processes and authorities, and list thresholds for corrective actions. The performance criteria for the corrective actions will prevent initial flood damage or

turbidity effects from becoming persistent, recurring, or chronic, whether the corrective action is needed at the initial damage site or at other locations that could be affected by channel response to the initial damage.

With implementation of Mitigation Measure 3.9-2, the short-term risk of surface-water or groundwater degradation following construction would be minimized, because potential flood damage in the interim period after construction would be adaptively managed. However, the potential for at least short-term violations of the Basin Plan's stringent water quality standard for turbidity cannot be feasibly eliminated. The Conservancy finds that Mitigation Measure 3.9-2 has been required in the project and that it will reduce some, but not all, of the project's impacts related to the short-term risk of surface water or groundwater degradation following construction. The other project alternatives which succeed in meeting the project objectives also result in this potentially significant impact to water quality.

The Conservancy finds that, due to the inherent and specific nature of the project and conditions following construction, there are no other feasible mitigation measures or alternatives that could be adopted to reduce these remaining impacts to less-than-significant levels. Because of the potential to exceed the stringent Basin Plan standards, Impact 3.9-2 would be **significant and unavoidable**.

IMPACT 3.9-7: DECREASED DELIVERY OF COARSE SEDIMENT TO COVE EAST AND BARTON BEACHES

The project has the potential to temporarily decrease the delivery of coarse sediment to Lake Tahoe relative to existing conditions. None of the design elements or expected natural processes of the project would require aggradation to meet the finished grade or function However, a temporary reduction in sediment delivery could occur because natural processes operating within the marsh downstream of the constructed pilot channel may not immediately form continuous low-flow channels to provide bedload-transport continuity all the way to the beach. The long-term effects on sediment transport and input of coarse sediment to the littoral zone would restore a more natural regime. This short-term impact would be **potentially significant**.

Mitigation Measure 3.9-7: Monitor and Adaptively Manage Delivery of Coarse Sediment to Cove East and Barton Beaches.

During the period of channel adjustments following construction, and until the streambed profile attains a relatively continuous slope within the study area, the Conservancy will monitor the supply of coarse sediment entering the study area, deposition within the treated reaches, and beach-face erosion at least once a year. Specifically, the Conservancy will make observations of net deposition or scour during low-water conditions. If substantial coarse-sediment deposition is occurring within large portions of the study area or beach-face erosion has worsened, and coarse-sediment input from upstream has not decreased, the Conservancy will respond with site-specific adaptive management. The Conservancy will develop and implement an adaptive management plan that will review and evaluate monitoring data and project conditions and recommend follow-up actions. Such actions could include continued or revised monitoring, corrective actions or interventions, and documentation. If coarse-sediment supplementation to site beaches or the nearshore is recommended, the coarse sediment shall be similar in lithology, size, and shape to native sands; washed/free of fine sediments or contaminants; and obtained from a permitted borrow/quarry location.

With implementation of Mitigation Measure 3.9-7, the potential adverse geomorphic consequences of short-term interruption of coarse-sediment delivery would be **less than significant** because the coarse sediment would be supplemented if necessary to prevent substantial additional beach erosion.

The Conservancy finds that Mitigation Measure 3.9-7 has been required in, or incorporated into, the project and would reduce the project's impacts on deceased delivery of coarse sediment to Cove East and Barton Beaches to **less-than-significant levels**.

E. CUMULATIVE IMPACTS (SECTION 3.18 IN THE FINAL EIR/EIS/EIS)

IMPACT 3.18-C9: CUMULATIVE BIOLOGICAL RESOURCES: VEGETATION AND WILDLIFE—CONSTRUCTION-RELATED EFFECTS ON SPECIAL-STATUS PLANTS AND SENSITIVE HABITATS (JURISDICTIONAL WETLANDS, RIPARIAN VEGETATION, AND SEZS)

Reasonably foreseeable projects would involve construction activities that would cause short-term disturbances that could affect special-status plants and sensitive habitats in the Upper Truckee River–Trout Creek watershed. These projects include measures to avoid or minimize these effects, but some residual effects would likely contribute to the significant overall cumulative impact on the watershed's sensitive habitats and potentially to the overall cumulative effect on special-status plant species.

The project would entail short-term disturbance of some sensitive habitats within the study area. As described in Environmental Commitment 5, "Prepare and Implement Effective Construction Site Management Plans," and Environmental Commitment 6, "Obtain and Comply with Federal, State, Regional, and Local Permits", the project includes design features which limit the construction-related disturbance of sensitive communities and the potential effects of that disturbance on related ecosystem functions. Nonetheless, considerable short-term disturbance of sensitive communities would be unavoidable because such disturbance is integral to the river, floodplain, and other restoration elements of the project. This impact on sensitive habitats would be significant and would make a considerable contribution to the overall cumulative impact on the watershed's sensitive habitats. In addition, the other project alternatives which succeed in achieving the project objectives would have similar significant contributions to this cumulative effect.

The Conservancy finds that, because the necessary construction activities within the sensitive environment cannot be avoided or mitigated, there are no other feasible mitigation measures or alternatives that could be adopted to reduce these remaining impacts to less-than-significant levels. Thus, the short-term contribution of the project to this cumulative impact would be **significant and unavoidable**.

IMPACT 3.18-C11: CUMULATIVE BIOLOGICAL RESOURCES: VEGETATION AND WILDLIFE—SHORT-TERM EFFECTS ON SPECIAL-STATUS WILDLIFE RESOURCES

In the Upper Truckee River–Trout Creek watershed, reasonably foreseeable projects involve construction activities that would cause short-term disturbances that could disrupt wildlife use of habitats. Some projects could potentially affect special-status wildlife species, but measures would be implemented to avoid or minimize construction-related effects. Nonetheless, some effects on special-status species could occur.

Under the proposed project, construction-related disturbance could potentially affect use of the study area by special-status wildlife species (e.g., yellow warbler). Effects on special-status wildlife would be avoided or reduced by mitigation planned as part of the project (Mitigation Measures 3.4-8A and 3.4-8B). This mitigation includes conducting preconstruction surveys for special-status wildlife and, if necessary, using buffers and/or limiting operation periods, which would avoid the loss of individuals, nests, or roost sites of special-status wildlife species, except for effects on waterfowl nesting. Because of this effect on waterfowl, the project would make a considerable contribution to cumulative effects on special-status wildlife resources. This contribution would be a **significant** impact.

Because waterfowl nest near the river mouth, Sailing Lagoon, Trout Creek Lagoon, and elsewhere within the study area for a considerable portion of the construction season, implementing buffers or a limited operation period that would avoid substantial effects on waterfowl nesting would not be feasible. In addition, the other project alternatives which succeed in achieving the project objectives would have similar significant contributions to this cumulative effect.

The Conservancy finds that there are no other feasible mitigation measures or alternatives that could be adopted to reduce the project's impacts related to the cumulative short-term effects on common or special-status wildlife resources and wildlife movement corridors to less-than-significant level. Because mitigation is not available to reduce this impact to less than significant, the residual impact would be cumulatively **significant and unavoidable**.

IMPACT 3.18-C28: CUMULATIVE GEOMORPHOLOGY AND WATER QUALITY – SHORT-TERM RISK OF SURFACE WATER DEGRADATION DURING CONSTRUCTION

Project construction activities would occur along or in the channel of the Upper Truckee River, in Trout Creek, in the Sailing Lagoon, and near the shoreline of Lake Tahoe. Although temporary BMPs are included in the project as described in Environmental Commitments 5 and 6, short-term risk of water quality degradation during construction could occur during summer construction seasons or intervening winters. Short-term turbidity that potentially impairs noncontact recreation beneficial uses (i.e., aesthetics) would be minor but could violate water quality standards of the Basin Plan, including the turbidity standard (<10 percent above background). If similar impacts occurred under reasonably foreseeable projects at the same time, the effects could combine downstream to increase the magnitude or duration of the water quality standard violation. Although the joint probability of concurrent failures of BMPs, given the rigorous typical BMP performance standards and short overlapping periods of construction, would be extremely remote, if it occurred, the combined effect would be cumulatively significant. The project could result in a considerable contribution to the combined, significant cumulative adverse effects related to violation of a water quality standard. This cumulative impact would be **significant**.

All feasible design features and mitigation measures to avoid or further reduce the short-term risk of surface water and groundwater degradation during construction would be expected to be incorporated into the individual restoration project plans and construction BMPs for specific projects. However, the risk remains that cumulative impacts will be significant and because of the inherent risks of construction in the sensitive marsh environment, additional mitigation is not available to reduce the project's contribution. In addition, the other project alternatives which succeed in achieving the project objectives would have similar considerable contributions to this cumulative effect.

The Conservancy finds that there are no feasible mitigation measures or alternatives that could be adopted to reduce the project's contributions to the cumulative short-term surface water quality degradation to less-than-significant levels. Because mitigation is not available to reduce this impact to less than significant the residual impact would be cumulatively **significant and unavoidable**.

IMPACT 3.18-C29: CUMULATIVE GEOMORPHOLOGY AND WATER QUALITY – SHORT-TERM RISK OF SURFACE WATER AND GROUNDWATER DEGRADATION FOLLOWING CONSTRUCTION

Project implementation would include channel sections that need periods of channel adjustment following construction to meet final design, and areas of reseeded native species on active floodplains and biotechnical streambank treatments that could be vulnerable to a large flood within the first few years following construction. Potential reductions in coarse sediment delivery downstream, generation of fine sediment related to adjustments to the channel bed and banks, mobilization of fine sediment and organic matter on reactivated floodplains, and flood damage that could result in persistent or chronic water quality degradation would be reduced by design elements planned as part of the project. The residual impacts would be minor but could still violate water quality standards, and if similar impacts occurred at other project sites during the same period, effects could combine to increase the magnitude or severity of a water quality impact. In the short term, implementing the project could result in a considerable contribution to effects on surface water; this cumulative impact would be **potentially significant**.

Mitigation Measure 3.18-C29: Implement an Interim Coordinated Adaptive Management Plan on the Upper Truckee River.

The sponsors (landowners/funders) for all the foreseeable river restoration projects that would be constructed on the Upper Truckee River shall develop and implement an interim coordinated adaptive management plan focused on potential short-term water quality degradation that may result if unexpectedly large flood flows occur within the first five years after construction. The plan shall be jointly developed to address issues that cross project boundaries and look at the system as a whole. The plan shall be in force for the interim period of channel adjustment and initial flood vulnerability (i.e., at least five years but no more than ten years from the end of construction—potentially as long as needed to allow for expected natural channel adjustments).

The plan shall identify specific data collection and monitoring protocols, describe decision-making processes and authorities, and advise on corrective actions. The performance criteria for the corrective actions shall focus on preventing damage or turbidity effects from becoming a persistent, recurring, or chronic source, whether the corrective action is needed at the initial damage site or at other location(s) that could be affected by channel response to the initial damage. The plan shall include a discussion of responsibilities for implementing corrective actions, with a starting assumption that each project sponsor would be financially responsible for implementing the plan within their project reach. However, it is possible that problems occurring in one reach may affect other reaches and that the group will decide, following review of monitoring data, that mitigation should be applied in a reach different from the one where the problems are initially observed to prevent future or chronic water quality effects.

With implementation of Mitigation Measure 3.16-10A, the likelihood and potential magnitude and duration of Impact 3.16-10 would be lessened, and would not be considerably worse than under existing conditions or the No Project/No Action Alternative. As described above, the criteria used to evaluate a significant water quality impact is exceeding 10 percent of background turbidity, therefore, the cumulative effects must meet or exceed such water quality standards to earn a less-than-significant conclusion, recognizing that any violation of a water quality standard is considered a water quality impact without taking in account the extent and duration of that impact. However, the cumulative risk of Basin Plan turbidity standard violations cannot be feasibly eliminated and the residual effect would remain significant and unavoidable. In addition, the other project alternatives would have similar considerable contributions to this cumulative effect.

With implementation of Mitigation Measure 3.18-C29, the likelihood and potential magnitude of Impact 3.18-C29 would not be considerably worse than under existing conditions; however, the residual effects could still result in violations of water quality standards. The Conservancy finds that Mitigation Measure 3.18-C29 has been required in the project and that it will reduce some, but not all, of the project's impacts related to the cumulative short-term risk of surface water or groundwater degradation following construction. The Conservancy finds that there are no other feasible mitigation measures or alternatives that could be adopted to reduce these remaining impacts to less-than-significant levels. Therefore, Impact 3.18-C29 would be **significant and unavoidable**.

F. STATEMENT OF OVERRIDING CONSIDERATIONS

Under CEQA, before a project which is determined to have a significant, unmitigated environmental effect can be approved, the public agency must consider and adopt a "statement of overriding considerations" pursuant to CEQA Guidelines sections 15043 and 15093. The primary purpose of CEQA is to fully inform the decision makers and the public as to the environmental effects of a proposed project, and to include feasible mitigation measures and alternatives to reduce any such adverse effects below a level of significance. CEQA, nonetheless, recognizes and authorizes the approval of projects where not all adverse impacts can be fully lessened or avoided. The public agency, however, must explain and justify its conclusion to approve such project through the statement of overriding considerations, setting forth the proposed project's general social, economic, policy, or other public benefits that support the agency's informed conclusion to approve the proposed project.

The Final EIR/EIS/EIS and the CEQA Findings of Fact conclude that implementing the Preferred Alternative will result in certain significant impacts to the environment that cannot be avoided or substantially lessened with the application of feasible mitigation measures or feasible alternatives. This Statement of Overriding Considerations is therefore necessary to comply with CEQA, Public Resources Code, section 21081, and the State CEQA Guidelines, sections 15043 and 15093. The significant and unavoidable impacts and the benefits related to the Preferred Alternative are described below. The Conservancy has carefully weighed these impacts and benefits and finds that the benefits of the Preferred Alternative outweigh the significant and unavoidable environmental impacts.

G. FINDINGS ON SIGNIFICANT AND UNAVOIDABLE IMPACTS ASSOCIATED WITH THE PREFERRED ALTERNATIVE

With the approval of the Preferred Alternative and the adoption of the CEQA Findings of Fact, the Conservancy is committing to implement the mitigation measures identified in the Final EIR/EIS/EIS for the Preferred Alternative to ensure that significant impacts are mitigated to a less than significant level to the extent feasible, and that the project's contribution to cumulative impacts is minimized and mitigated to the extent feasible. The Conservancy further finds that while the mitigation measures it adopts as part of the CEQA Findings of Fact will substantially lessen or avoid many of the significant environmental impacts discussed in the Final EIR/EIS/EIS, and mitigation adopted to address one area may result in beneficial effects in other subject areas, the impacts identified below will not be mitigated to a less than significant level, and therefore remain significant and unavoidable.

Biological Resources

- Impact 3.4-6 – Short-Term Disturbance of Sensitive Communities (Jurisdictional Wetlands, Riparian Vegetation, and SEZ) Resulting from Construction Activities
- Impact 3.4-8 – Disruption of Wildlife Habitat Use and Loss of Wildlife Resulting from Construction Activities

Fisheries

- Impact 3.5-4 – Long-Term Disruption of Fish Passage/Migration

Geomorphology and Water Quality

- Impact 3.9-1– Short-Term Risk of Surface Water and Groundwater Degradation during Construction
- Impact 3.9-2 – Short-Term, Project-Related Risk of Surface Water Degradation Following Construction

Cumulative Impacts

- Impact 3.18-C9 – Cumulative Biological Resources: Vegetation and Wildlife—Construction-Related Effects on Special-Status Plants and Sensitive Habitats (Jurisdictional Wetlands, Riparian Vegetation, and SEZs)
- Impact 3.18-C11 – Cumulative Biological Resources: Vegetation and Wildlife—Short-Term Effects on Special-Status Wildlife Resources
- Impact 3.18-C28 – Cumulative Geomorphology and Water Quality—Short-Term Risk of Surface Water Degradation during Construction
- Impact 3.18-C29 – Cumulative Geomorphology and Water Quality—Short-Term Risk of Surface Water Degradation following Construction

The Conservancy finds that each of the following benefits of the Preferred Alternative, separately and independently, outweigh the unavoidable adverse environmental effects of the project identified above, and each

one is an overriding consideration independently warranting project approval. The Conservancy finds that the significant unavoidable impacts of the project are overridden by each of these individual considerations, standing alone. The significant unavoidable environmental effects remaining after mitigation measures are considered acceptable in light of these significant benefits of the Preferred Alternative, as described in this Statement of Overriding Considerations.

H. OVERRIDING CONSIDERATIONS FOR THE PREFERRED ALTERNATIVE

The Preferred Alternative will result in numerous benefits to natural resources, including improvements to unique wetland ecosystems and the clarity of Lake Tahoe, along with associated social, economic, and other public benefits. The project benefits justify its approval and implementation, notwithstanding the fact that not all environmental impacts were fully reduced below a level of significance. The Preferred Alternative's significant and unavoidable impacts are all associated with construction-related and short-duration effects on wildlife, ecosystems, and water quality. The Preferred Alternative will result in noteworthy long-term benefits to these particular resources, as described in more detail below, greatly outweighing the temporary significant impacts over time. The Preferred Alternative will improve and sustain, over the long term and future, some of Lake Tahoe's most treasured assets.

i. SUCCESSFULLY ACHIEVES PROJECT OBJECTIVES

The Preferred Alternative will successfully achieve the following project objectives to an equal or greater extent than the other alternatives analyzed:

- It would restore natural and self-sustaining river and floodplain processes and functions.
- It would protect, enhance, and restore naturally functioning habitats.
- It would restore and enhance fish and wildlife habitat quality.
- It would improve water quality through enhancement of natural physical and biological processes.
- It would protect and, where feasible, expand Tahoe yellow cress populations.
- It would provide public access, access to vistas, and environmental education at the Lower West Side and Cove East Beach consistent with other objectives.

ii. RESTORES THE LARGEST WETLAND IN THE SIERRA NEVADA

The Upper Truckee Marsh is the largest remaining wetland in the Sierra Nevada, exhibiting unique habitats used by a multitude of wildlife and aquatic species. Past land use disturbances have reduced the extent of this habitat and impaired its quality, as now the Marsh is smaller and dryer than it once was. The Preferred Alternative will restore natural river and floodplain processes and result in significant benefits to the rare and threatened habitats that remain. River flows will spread over the vast expanse of the marsh and rewet the meadow and marsh

surfaces, and groundwater levels will rise causing the Marsh vegetation to thrive. The restored channel configuration will promote development of lagoons and standing water habitat similar to the historic condition, allowing various fish and wildlife species to prosper there once again. The Preferred Alternative will improve aquatic habitat by creating stable, vegetated, and self-sustaining channels which connect with the lagoons and floodplains within the restored Marsh delta system.

The Preferred Alternative will restore and enhance over 500 acres of meadow, riparian, and aquatic habitats, comprising the largest single ecosystem restoration effort implemented in the Lake Tahoe Basin. It will significantly contribute to attainment of several of the TRPA's ecological environmental thresholds, including substantial progress towards regional stream environment zone, wildlife, vegetation, and fisheries goals.

iii. IMPROVES AND PROTECTS WATER QUALITY AND LAKE CLARITY

Lake Tahoe is famed for its clear waters; however, lake clarity has been declining ever since clarity measurements began in 1968. The observed decline in lake transparency is a result of light scattering, with research showing that fine sediment particles are the primary pollutant causing the observed clarity reductions. The UTR watershed is the largest stream-borne sediment contributor to the lake, and the UTR is also the largest source of stream channel erosion. The Preferred Alternative will result in substantial water quality benefits by reducing erosion and restoring the filtration capacity of the Marsh.

Channel conditions within the project area are highly unstable, as the existing incised channel contains large and erosive flood events. Meadow soils are actively eroding into the river and lake, contributing to the documented losses in lake clarity. The Preferred Alternative will result in substantial reductions to channel erosion through creation of a stable and appropriately sized channel network, lowering of floodplain surfaces, and stabilizing unstable riverbanks.

The Upper Truckee Marsh, due to its location at the mouths of the UTR and Trout Creek, presents an unparalleled opportunity to naturally filter water from the largest two watersheds in the Tahoe Basin. Upper Truckee flows once spread over the vast expanse of the Marsh, settling and filtering sediment from the river before it entered Lake Tahoe. The UTR now rarely overtops its banks, as large flood events are currently routed directly to the lake through an oversized and straightened channel. The Preferred Alternative will restore the natural filtration capacity of the Marsh by eliminating the oversized channel and spreading flows over the meadow and marsh surfaces. This restored filtration process will improve water quality and lake clarity for generations to come, while restoring sustainability and adaptability to the Marsh and the many functions it provides.

The Preferred Alternative will stabilize over 10,000 linear feet of river channel and reconnect approximately 500 acres of floodplain. These improvements will mark extensive progress towards erosion reductions and the treatment of river and stream flows. The Preferred Alternative is a part of the Lake Tahoe Total Maximum Daily Load Implementation Plan as it will assist in reaching regional lake clarity goals. It will also provide contributions towards attainment of the TRPA's water quality environmental thresholds.

I. REFERENCES

For complete lists of references used in preparing the Draft EIR/EIS/EIS, see Chapter 7, "References Cited," in the Draft EIR/EIS/EIS. For a complete list of references used in preparing the Final EIR/EIS/EIS, see Chapter 7, "References Cited," in the Final EIR/EIS/EIS.

Resolution Exhibit B

Mitigation Monitoring and Reporting Program
for the

Upper Truckee River and Marsh Restoration Project

SCH# 2007032099

Lead Agencies:

California Department of
General Services

California
Tahoe Conservancy

Tahoe Regional
Planning Agency
Lake Tahoe Environmental
Improvement Program

U.S. Department of Interior
Bureau of Reclamation

December 2015

MITIGATION MONITORING AND REPORTING PROGRAM FOR THE UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

In February 2013, the California Tahoe Conservancy (Conservancy) as lead agency under the California Environmental Quality Act (CEQA), the U.S. Department of the Interior Bureau of Reclamation (Reclamation) as federal lead agency under the National Environmental Policy Act (NEPA), and the Tahoe Resources Planning Agency (TRPA) as lead agency in accordance with the Compact and Code of Ordinances released a joint environmental impact report, environmental impact statement, and environmental impact statement (EIR/EIS/EIS) for the Upper Truckee River and Marsh Restoration Project to provide the public and responsible and trustee agencies with information about the potential environmental effects associated with the construction and operation of the proposed project.

The Preferred Alternative includes the most beneficial and cost-effective elements of the five alternatives evaluated in the draft EIR/EIS/EIS. This alternative is also the most feasible, the most highly responsive to public comments, and the most resilient to the potential impacts of climate change. It includes the following components:

- Alternative 3 restoration elements which involve construction of a small pilot channel that would reconnect the Upper Truckee River to the middle of the marsh to attain ecosystem and water quality improvements. The abandoned sections of existing river channel would be largely filled to create restored meadow and expanded wetlands.

- Alternative 5 for recreation elements on the east side of the Upper Truckee Marsh that would maintain the current dispersed recreation experience. No new recreation infrastructure would be installed and public access would be afforded through the current informal user-created trail system. The Conservancy would continue to manage and reduce the impacts of recreational use and new trails while providing on-site signage.

- Alternative 3 recreation elements for the west side of the Upper Truckee Marsh would upgrade the recreation infrastructure through construction of ADA-accessible trails to Lake Tahoe and formalized viewpoints that provide interpretive and site-information signage. The developed recreation experience would be maintained consistent with natural resource values.

- Previously proposed only under Alternatives 1 and 2, the Preferred Alternative would also include the restoration of sand ridges ("dunes") at Cove East Beach that were graded and leveled as part of the Tahoe Keys development and the removal of fill at the east end of Barton Beach to create a restored lagoon.

The final EIR/EIS/EIS concludes that implementation of the project would generate significant adverse environmental impacts. For most potential impacts, the EIR/EIS/EIS prescribes mitigation capable of reducing these impacts to less-than-significant levels.

Section 15097 of the State CEQA Guidelines requires that a public agency adopt a mitigation monitoring or reporting program upon approval of a mitigated negative declaration or environmental impact report. This requirement is meant to ensure that the lead agency enforces the implementation of the mitigation measures by the applicant or in this case itself when it is implementing its own project. This Mitigation Monitoring and Reporting Program (MMRP) fulfills the Conservancy's obligation as the CEQA lead agency to ensure the timely implementation of the mitigation measures identified in the EIR/EIS/EIS.

As the NEPA lead, Reclamation will complete a Record of Decision (ROD) on the project following certification by the Conservancy. The ROD will state the Federal action that will be implemented and will discuss all factors leading to the decision, including any monitoring and enforcement program established to ensure that identified

mitigation measures are accomplished. For Reclamation purposes, environmental "mitigation measures" presented in this MMRP are considered "environmental commitments."

TRPA is the primary permitting agency. The project would be required to comply with TRPA's Regional Plan and Code of Ordinances to receive permits for construction. Under Chapter 4 of the TRPA Code of Ordinances, findings must be made in writing regarding all significant environmental impacts and their associated mitigation measures, with substantial evidence provided in the record of review before final project approval. This MMRP will be used to evaluate if mitigation measures are sufficient for project permitting.

Permits and approvals issued by responsible agencies, including TRPA will be considered after further design development of the project. They will be scheduled according to the procedures of the approving agencies.

The Preferred Alternative includes the Environmental Commitments identified in Table 1 below. Environmental Commitments are standard project components necessary to comply with existing federal statutes, state statutes, executive orders, and regulations.

These environmental protection features are typical elements of permits and agency approvals, and therefore they were considered and applied as essential components of the project in the draft EIR/EIS/EIS. The Environmental Commitments were incorporated into the proposed project and considered before the application of thresholds of significance and determination of environmental impacts. These Environmental Commitments assisted the Conservancy, Reclamation, and TRPA in determining the scope of the draft EIR/EIS/EIS, developing program components and objectives, identifying the range of alternatives, defining potential environmental impacts and the significance of those impacts, and identifying appropriate mitigation measures.

In some instances, these ECs are insufficient to fully avoid potential impacts; therefore, mitigation measures are proposed when feasible. Mitigation measures are tied to a specific action that either required more detail than standard regulatory requirements to make a conclusion, or went beyond those standard practices.

To document fulfillment of these commitments, the Conservancy had included Table 1which contains a summary of required permits and environmental commitments that have been incorporated into the project. These Environmental Commitments will be adopted on approval of the environmental document and have been included in the Mitigation Monitoring and Reporting Program to maintain a record of completion.

Table 1 contains the following information:

Environmental Commitments: Provides the text of the environmental commitments, each of which has been adopted by the Conservancy and incorporated into the project.

Timing/Schedule: Lists the time frame in which the environmental commitment must take place.

Responsibility: Identifies the entity responsible for implementing the environmental commitment.

Completion of Environmental Commitments: The Conservancy is responsible for reporting on implementation of the environmental commitments. The "Action" column is to be used by the Conservancy to describe the action(s) taken to complete implementation. The "Date Completed" column is to be used by the Conservancy to indicate when implementation of the environmental commitment has been completed. The Conservancy, at its discretion, may delegate implementation responsibility or portions thereof to qualified consultants or contractors.

Table 1
Environmental Commitment Tracking Table

Environmental Commitments of the Upper Truckee River and Marsh Restoration Project	Implementation		Completion of Implementation	
	Timing/Schedule	Responsibility	Action	Date Completed
Environmental Commitment 1: Construction-Related Emissions of ROG, NO_X, and PM_{10}. TRPA and the El Dorado Air Quality Management District regulate construction-related emissions of ROG, NO_X, and PM_{10}. As noted in the EIR, these construction-related emissions are temporary, and will take place for a limited construction season and for a limited number of years. Consequently, will also be less than significant because they are temporary. The project includes: ▸ TRPA permits and approvals, requiring compliance with TRPA codes and procedures with respect to BMPs (TRPA Code Section 60.4), project grading (TRPA Code Section 33.3), excavation, and construction-related emissions-generating activities (TRPA Code Section 65.1, "Air Quality Control"). ▸ El Dorado County permits and approvals, requiring compliance with county laws and procedures with respect to BMPs, project grading excavation, and construction-related emissions-generating activities. The Conservancy and their construction contractor will comply with EDCAQMD Rule 202, Visible Emissions; Rule 205, Nuisance; Rule 223, Fugitive Dust–General Requirements; and Rule 223-1, Fugitive Dust–Construction, Bulk Material Handling, Blasting, Other Earthmoving Activities, and Carryout and Trackout Prevention. In addition, the contractor will implement the following fugitive dust control measures: • Apply dust suppression measures in a sufficient quantity and frequency to maintain a stabilized surface and prevent visible dust emissions from exceeding 100 feet in length in any direction. Apply water to at least 80 percent of the surface areas of all open storage piles on a daily basis when there is evidence of wind-driven fugitive dust. • Install control measures immediately adjacent to the paved surface to prevent track-out from exiting vehicles. ▸ Restriction on activities disturbing the soil to between October 15 and May 1 of each year, unless approval has been granted by TRPA and the Lahontan RWQCB. All construction sites must be winterized before October 15 of each construction year in accordance with the provisions of Section 33.3.1.D of the TRPA Code of Ordinances and the National Pollutant Discharge Elimination System (NPDES) permit. ▸ Requirements for dust control measures for any grading activity creating substantial quantities of dust. Dust control measures must be approved by TRPA before groundbreaking and will comply with the provisions of Section 33.3.3 of the TRPA Code of Ordinances.	During construction	Conservancy and its primary contractors for construction		
Environmental Commitment 2: Prepare and Implement a Cultural Resources Protection Plan. The U.S. Army Corps of Engineers and TRPA require protection of historic and cultural resources per Section 106 of the National Historic Preservation Act (NHPA) and TRPA ordinances (TRPA Code Section 29.2 and Section 64.8). The Project includes a cultural resource protection plan that will be prepared and implemented before and during construction. Measures will include, but are not limited to assuring final design placement and orientation of recreation infrastructure will incorporate visual screening or barriers as appropriate to minimize visibility and access which could otherwise lead to damage or destruction of prehistoric site CA-Eld-26; installing barriers or fencing during construction to protect identified sites, including CA-Eld-26; jobsite education on protocol to identify potential uncovered resources and response (stop work) protocol; and presence of a qualified cultural resource specialist to oversee grading activities that are in the vicinity of eligible resources, including initial grading activities within the vicinity of the bluff and CA-Eld-26. The Conservancy will ensure that the requirements of NHPA Section 106 are incorporated into the cultural resources protection plan. Before project-related ground disturbance begins, the Conservancy will train all construction personnel regarding the possibility of uncovering buried cultural resources. The Conservancy will retain a qualified cultural resources specialist to educate personnel as to how to identify prehistoric and historic-era archaeological remains. If unusual amounts of stone, bone, or shell or significant quantities of historic-era artifacts such as glass, ceramic, metal, or building remains are uncovered during construction activities, work in the vicinity of the specific construction site at which the suspected resources have been uncovered will be suspended, and the Conservancy will be contacted immediately. In addition, Reclamation or other federal lead agency for projects that require federal discretionary actions under NEPA will be contacted immediately so that the Section 106 Post-Review Discovery process, which includes consultation with the State Historic Preservation Officer (SHPO) and Indian tribes, proceeds as required by federal regulation (36 CFR 800.13). At that time, the Conservancy will retain a qualified professional archaeologist, who will conduct a field investigation of the specific site and recommend measures deemed necessary to protect or recover any cultural resources concluded by the archaeologist to represent significant or potentially significant resources as defined by CEQA, NEPA, and TRPA. These measures may include but will not necessarily be limited to avoidance, archival research, subsurface testing, and excavation of contiguous block units. The Conservancy will implement the measures deemed necessary by the archaeologist before construction resumes within the area of the find. The purpose of this oversight will be to ensure that cultural resources potentially uncovered during ground-disturbing activities are identified, evaluated for significance, and treated in accordance with their possible (NRHP) and California Register of Historical Resources (CRHR) status. Potential treatment methods for significant and potentially significant resources may include but will not be limited to taking no action (i.e., resources determined not to be significant), avoiding the resource by changing construction methods or project design, and implementing a program of testing and data recovery, in accordance with all applicable Federal and State requirements.	From project design through construction	Conservancy and its primary contractors for engineering and construction		

Table 1
Environmental Commitment Tracking Table

Environmental Commitments of the Upper Truckee River and Marsh Restoration Project	Implementation		Completion of Implementation	
	Timing/Schedule	Responsibility	Action	Date Completed
Environmental Commitment 3: Stop Work Within an Appropriate Radius Around the Discovered Human Remains, Notify the El Dorado County Coroner and the Most Likely Descendants, and Treat Remains in Accordance With State and Federal Law. In accordance with Section 7050.5(b) of the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, the contractor and/or the Conservancy will immediately halt potentially damaging excavation in the area of the burial and notify the El Dorado County Coroner and a professional archaeologist to determine the nature of the remains. In addition, Reclamation or other federal lead agencies that require federal discretionary actions under NEPA will be contacted immediately so that the Section 106 Post-Review Discovery process proceeds as required by federal regulation (36 CFR 800.13). The coroner will examine all discoveries of human remains within 48 hours of receiving notice of the discovery. If the coroner determines that the remains are those of a Native American, he or she will contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (California Health and Safety Code, Section 7050[c]). Following the coroner's findings, the Conservancy, an archaeologist, and the NAHC-designated Most Likely Descendant (MLD) will determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in California Public Resources Code (PRC) Section 5097.9 Notification of and consultation with appropriate parties as identified through the Section 106 process would also be required if the project has federal funding or a federal permitting requirement. Upon the discovery of Native American remains, the Conservancy will ensure that the immediate vicinity (according to generally accepted cultural or archaeological standards and practices) is not damaged or disturbed by further development activity until consultation with the MLD has taken place. The MLD will have 48 hours after being granted access to the site to complete a site inspection and make recommendations. A range of possible treatments for the remains, including nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendants, or other culturally appropriate treatment may be discussed. PRC Section 5097.9 suggests that the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. The following are site protection measures that the Conservancy will employ: ▸ Record the site with the NAHC or the appropriate Information Center of the California Historical Resources Information System. ▸ Utilize an open-space or conservation zoning designation or easement. ▸ Record a document with El Dorado County. The Conservancy or its authorized representative will rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance if the NAHC is unable to identify a MLD or if the MLD fails to make a recommendation within 48 hours after being granted access to the site. The Conservancy or its authorized representative may also reinter the remains in a location not subject to further disturbance if it rejects the recommendation of the MLD and mediation by the NAHC fails to provide measures acceptable to the Conservancy.	During construction	Conservancy and its primary contractors for construction		
Environmental Commitment 4: Prepare and Implement an Invasive Species Management Plan. TRPA and the California Department of Fish and Wildlife (CDFW) require invasive species management to address existing and potential terrestrial and aquatic invasive species. In addition, Reclamation or other federal lead agencies that require federal discretionary actions under NEPA will comply with Executive Order 13112, which directs all Federal agencies to prevent the introduction and control the spread of invasive nonnative species in an environmentally sound manner to minimize ecological impacts. The project includes an Invasive Species Management Plan that will specifically address Eurasian watermilfoil as it is known to be present in the study area and is a species of particular concern. The plan will be divided into two sections: one addressing terrestrial species and the other addressing aquatic. The aquatic portion will be consistent with the State of California's Aquatic Species Management Plan (CDFG 2008), and will be completed, reviewed, and approved by CDFW prior to initiation of construction. The plan will address how the project will address invasive species currently in the project area in addition to how the project will prevent introducing new species. The plan will include the following measures to address both invasive aquatic and terrestrial species: ▸ A qualified biologist with experience in the Tahoe Basin will conduct a preconstruction survey to assess current populations of invasive plants in the project area. Invasive species presence will be documented, and an action plan in the context of the project will be developed to remove them prior to construction and/or prevent their spread due to construction activities. Control measures may include hand removal or other mechanical control. Herbicides are not allowed within Stream Environment Zones (SEZs). ▸ All equipment entering the study area from areas infested by invasive plants or areas of unknown infestation status will be cleaned of all attached soil or plant parts before being allowed into the study area. All motorized and nonmotorized equipment used for in-channel work will be thoroughly cleaned prior to use on the project site and then be cleaned before leaving the site. This includes waders, nets, seines, water quality monitoring equipment, boats, kayaks, life jackets, and construction vehicles. ▸ To restrict the import of seed or other materials potentially containing invasive plants, the project will use on-site sources of seed and materials to the extent practicable. Seed, soil amendment, and erosion control materials that need to be imported to the study area will be certified weed-free or will be obtained from a site documented as uninfested by invasive plants.	Prior to, during, and post construction	Conservancy and its primary contractors for construction		

Table 1
Environmental Commitment Tracking Table

Environmental Commitments of the Upper Truckee River and Marsh Restoration Project	Implementation		Completion of Implementation	
	Timing/Schedule	Responsibility	Action	Date Completed
▸ With regard to aquatic invasive species, habitat within construction sites with aquatic invasive species will be isolated prior to in-channel work. A qualified biologist(s) with expertise in Tahoe Basin aquatic plant and animal species will be present during construction and will supervise the removal and disposal of nonnative invasive species from the project area. All biologists working on this program will be qualified to conduct nonnative aquatic species removal/disposal in a manner that avoids and/or minimizes all potential risks to native aquatic species, particularly any special status species potentially encountered. Biologists will be on site when work sites are isolated and/or dewatered, if necessary, in order to capture, handle, and safely remove or dispose of any nonnative aquatic invasive species encountered. This program will be closely coordinated with the Aquatic Species Rescue and Relocation Program, described below as Environmental Commitment 7. After project construction, the project site will be annually monitored for occurrence of invasive plants for four years. If invasive plants are documented during monitoring, they will be treated and eradicated to prevent further spread.				
Environmental Commitment 5: Prepare and Implement Effective Construction Site Management Plans. Several agencies (e.g., TRPA, the Lahontan RWQCB, the U.S. Army Corps of Engineers [USACE], CDFW, U.S. Fish and Wildlife Service [USFWS], and CSLT) regulate construction risks to water quality and vegetation degradation. The project includes several site management plans to comply with these existing regulations, including but not limited to a grading and erosion control plan, a dewatering and channel seasoning plan, a diversion plan, a winterization plan, and a monitoring and construction management plan. The plans require design features that: ▸ Restrict the area and duration of construction disturbance to the absolute minimum necessary to accomplish work. Protect existing vegetation outside construction area and salvage and reuse riparian vegetation where it needs to be disturbed. ▸ Design, install, and maintain temporary BMPs to protect disturbed areas and minimize soil erosion, prevent surface runoff interaction with disturbed surfaces, and limit the potential for release of sediment to surface water bodies for storm events up to the 20-year precipitation event. ▸ Design, install, and maintain internally draining construction area(s) within the study area to prevent discharge of untreated stormwater into surface water bodies. Anticipate runoff from adjacent lands and reroute it around the construction zone. ▸ Salvage topsoil to be reused on-site during project-related grading. ▸ Provide winterization that isolates and protects disturbed areas from high streamflow on the Upper Truckee River and Trout Creek (up to the 50-year event). ▸ Secure a source of transportation and a location for deposition and/or storage of all excavated and imported materials at the project site and minimize use of nonlocal materials and importation of materials from off-site. ▸ Protect stockpiled and transported materials or debris from wind or water erosion. Store soil and other loose material at least 100 feet from the active channel during the construction season. Designate staging areas and haul routes in existing developed or disturbed areas where feasible, and where not feasible, in the least sensitive natural areas feasible. ▸ Flag and/or fence boundaries of staging areas, haul routes, and construction sites. ▸ Restrict the placement of materials or equipment to designated staging areas or construction sites and prohibit the use of vehicles off of roads and haul routes. ▸ Minimize overwinter storage of materials, vehicles, equipment, or debris within the 100-year floodplain. ▸ Provide site-specific and reachwide dewatering/diversion plans that indicate the scheduling approach and/or maximum diverted flows to minimize risks from summer thunderstorms, specific diversion/bypass/ dewatering methods and equipment, defined work areas and diversion locations, the types and locations of temporary BMPs for the diversions and reintroduction points, measures and options for treating turbid water before release back to the channel, and stated water quality performance standards. ▸ Salvage and reuse plant materials to the extent practicable. ▸ Avoid fertilizer application to revegetated areas. ▸ Provide flushing flows before activation of new and reconnected river channel sections based on a “channel seasoning” plan that indicates the water source(s); volumes and duration required; phased placement of clean, washed gravels; and the measures and options for treating potentially turbid water. ▸ Require all contractors to develop Spill Prevention Plans (SPPs) and Storm Water Pollution Prevention Plans (SWPPPs). These plans will contain BMPs to be implemented to minimize the risk of sedimentation, turbidity, and hazardous material spills. Applicable BMPs may include permanent and temporary erosion control measures, including the use of straw bales, mulch or wattles, silt fences, filter fabric, spill remediation material such as absorbent booms, proper staging of fuel, out of channel equipment maintenance, and ultimately seeding and revegetating. Preventing contaminants from entering the river during construction and operation of the project will protect water quality and the aquatic habitat.	Prior to and through construction	Conservancy and its primary contractors for engineering design and construction		

Table 1
Environmental Commitment Tracking Table

Environmental Commitments of the Upper Truckee River and Marsh Restoration Project	Implementation		Completion of Implementation	
	Timing/Schedule	Responsibility	Action	Date Completed
Maintain the effectiveness of temporary erosion control, stormwater facilities, and flood flow protections throughout the construction area. Monitor the status and effectiveness of temporary erosion control, stormwater facilities, and flood flow protections throughout the construction area, including each of the internally draining zones that could separately discharge to various surface water bodies. Monitor turbidity upstream of the Upper Truckee River and Trout Creek, and where feasible, downstream of the construction zone. Monitoring will be conducted by qualified personnel on a regular basis during summer construction and on an event basis when runoff equals or exceeds the BMP design standards. Document failures and/or threats of BMP failures, and identify remedial measures implementation. Repair BMP failures within 24 hours of documentation.				
Environmental Commitment 6: Obtain and Comply with Federal, State, Regional, and Local Permits. Federal, state, and local permits, as described in the other ECs in this table, require that the project include various environmental protection features. The project includes all necessary permits and the standard requirements to comply with the permits, as described more specifically in the other ECs in this table. The anticipated compliance, consultation, and coordination are described further in Chapter 5 of the Draft EIR/EIS/EIS.	Prior to and during construction	Conservancy and its primary contractors for construction		
Environmental Commitment 7: Prepare and Implement an Aquatic Species Rescue and Relocation Plan. TRPA Code Section 79, "Fish Resources," and CDFW regulations protect aquatic organisms from construction-related effects. The project includes an Aquatic Species Rescue and Relocation Plan that will protect native fish or desired sport (trout) and native mussels from impacts associated with construction of the project. The objective of the rescue and relocation effort is to reduce harm and avoid potential mortality of important aquatic species, especially sensitive fish species and mussels, which may be present within the project area. The plan will be completed, reviewed, and approved by both CDFW and USFWS (for Lahontan cutthroat trout) prior to initiation of construction. Aquatic habitat within work areas will be isolated (using block nets, silt curtains, or coffer dams) prior to in-channel work. A qualified biologist with expertise in Tahoe Basin aquatic species, including the collection, handling, and relocating of fish and freshwater mussels, habitat relationships, and biological monitoring of Tahoe Basin fish species will supervise the fish and mussel rescue and relocation program for the project. All biologists working on the fish rescue and recovery program will be qualified to conduct fish and mussel collections in a manner that minimizes all potential risks to collected animals, particularly any special status species potentially encountered. Aquatic organisms isolated within the work area(s) will be removed by hand, seine netting, or, if necessary, electrofishing. Partial dewatering of the site will facilitate removal of aquatic species, but dewatering should not expose or strand individuals to be rescued, and water temperature and dissolved oxygen levels should be monitored to maintain levels supporting the most sensitive species. Should western pearlshell mussels be found in the site, the mussels shall be removed prior to fish rescues to minimize injury from foot traffic or electrofishing. Mussels can be located and removed by hand in wadeable streams; snorkeling and hand removal may be needed in deeper water. If electrofishing is necessary, it will be performed by qualified biologists and conducted according to established guidelines provided by CDFW and USFWS. Biologists will be on site when work sites are isolated and/or dewatered, in order to capture, handle, and safely relocate sensitive fish species (i.e., Lahontan cutthroat trout and western pearlshell mussels). Appropriate rescue methods should consider both general (low conductive water) and site-specific conditions (substrate, bed morphology). All captured native fish and mussels will be relocated, as soon as possible, to another Upper Truckee River site that has been preapproved by CDFW and USFWS and/or USFS biologists, and in which suitable habitat conditions are present. All captured invasive fishes (e.g., bluegill, bass, and catfish) or aquatic invasive plants will be disposed of, consistent with the approved Environmental Commitment 4, "Prepare and Implement an Invasive Species Management Plan," described above.	Prior to and during construction	Conservancy		
Environmental Commitment 8: Prepare a Final Geotechnical Engineering Report. TRPA requires preparation of grading plans which are will be developed based on the geotechnical report information to support project designs and construction activities. Section 33.3, "Grading Standards," of the TRPA Code of Ordinances regulates excavation, filling, and clearing to avoid adverse effects related to exposed soils, unstable earthworks, or groundwater interference. Section 33.3 specifically addresses seasonal limitations, winterization techniques, discharge prohibitions, dust control, disposal of materials, standards for cuts and fills, and excavation limitations. Section 33.4, "Special Information Reports and Plans," regulates the need for special investigations, reports, and plans determined to be necessary by TRPA to protect against adverse effects from grading, including potential effects on slope stability, groundwater or antiquities. The project includes a final geotechnical engineering report for the project that will address and make recommendations on the following as necessary: ► site preparation; ► appropriate sources and types of fill; ► potential need for soil amendments; ► access roads, pavement, and asphalt areas; ► shallow groundwater table; and ► soil and slope stability.	From project design through construction	Conservancy and its primary contractors for engineering design and construction		

Table 1
Environmental Commitment Tracking Table

Environmental Commitments of the Upper Truckee River and Marsh Restoration Project	Implementation		Completion of Implementation	
	Timing/Schedule	Responsibility	Action	Date Completed
In addition to the recommendations for the conditions listed above, the geotechnical investigation will include subsurface testing of soil and groundwater conditions for proposed project elements and will determine appropriate bulkhead and levee and bridge foundation designs that are consistent with CSLT code requirements. The shorezone is regulated by the TRPA Code, Chapters 54 and 55. As a result, all projects which fall within this area a referred to the TRPA for review. The CSLT review will be limited to providing input into the TRPA process and processing the project through the city permit process. (Ord. 903. Code 1997 § 5-29) As described in section 7.20.070 Exemptions of the CSLT Code unless in conflict with provisions of adopted general and/or specific plans, stream restoration or alteration projects conducted under valid regional, state or federal permits, e.g., stream alteration permits, water quality certifications, etc. may be done without obtaining a CSLT grading permit. Exemption from the requirement of a grading permit shall not be construed as permission to violate any provision of code requirements (Ord. 1000 § 1. Code 1997 § 36-7). All recommendations contained in the final geotechnical engineering report will be implemented by the Conservancy. Special recommendations contained in the geotechnical engineering report will be noted on the grading plans and implemented as appropriate before construction begins. Design and construction of all phases of the project will be in accordance with current CSLT code requirements at the time of construction.				
Environmental Commitment 9: Develop and Implement a Construction Management Program. The project includes a construction management program that will inform contractors and subcontractors of: ► work hours, ► modes and locations of transportation and parking for construction workers, ► location of overhead and underground utilities, ► worker health and safety, ► truck routes, ► stockpiling and staging procedures, ► public access routes, ► the terms and conditions of all project permits and approvals, and ► the health and safety plan (HASP) information described below. The project includes a HASP, which will be complied with throughout project implementation because construction personnel shall be made familiar with the contents of the plan before the start of construction activities. A copy of the plan shall be posted in the trailer used by the on-site construction superintendent. The HASP: ► clearly notifies all workers of the potential to encounter hazardous materials during demolition and construction activities; ► identifies proper handling and disposal procedures for contaminants expected to be on-site as well as maps and phone numbers for local hospitals and other emergency contacts; ► requires that stored hazardous materials present in the study area be removed and disposed at appropriately permitted locations, as appropriate; ► describes fire prevention and response methods, including fire precaution, prevention, and suppression methods that are consistent with the policies and standards in South Lake Tahoe; ► includes a requirement that all construction equipment be equipped with spark arrestors; and ► includes construction notification procedures for CSLT police, public works, and fire department and schools within one-quarter mile before construction activities. As required by California Public Resources Code Section 21151.4, the Conservancy shall provide written notification of the project to the Lake Tahoe Unified School District at least 30 days before certification of the EIR/EIS/EIS and shall consult with the school district regarding proper handling and disposal methods associated with substances subject to California Health and Safety Code Section 25532. Notices would also be distributed to neighboring property owners, local agencies, and public works, police, and fire departments, and the Lake Tahoe Unified School District.	Prior to and during construction	Conservancy and its primary contractors for construction		

Table 1
Environmental Commitment Tracking Table

Environmental Commitments of the Upper Truckee River and Marsh Restoration Project	Implementation		Completion of Implementation	
	Timing/Schedule	Responsibility	Action	Date Completed
Environmental Commitment 10: Establish and Implement a Management Agreement with the El Dorado County Vector Control District. The project includes a management agreement with the El Dorado County Vector Control District (EDCVCD) to adequately control mosquito populations in the study area. As a performance criterion for the management agreement, the terms and conditions of the agreement will be designed to ensure that EDCVCD can maintain mosquito abundance at or below preproject levels. The agreement will include, but not be limited to, the following: ▸ measures that ensure necessary access for monitoring and control measures; ▸ EDCVCD review of project plans and provision of recommendations for management of mosquito populations; and ▸ applicable best management practices from the California Department of Public Health's *Best Management Practices for Mosquito Control on California State Properties* (CDPH 2012), including • procedures for coordinating Conservancy and EDCVCD management activities, and • providing public information for visitors and the community regarding control measures being implemented, the risk of transmission of mosquito-borne disease, and personal protective measures.	Prior to and during construction	Conservancy		
Environmental Commitment 11: Incorporate Effective Permanent Stormwater Best Management Practices. TRPA (TRPA Code Section 25, "Best Management Practices Requirements") and Lahontan RWQCB regulations (Clean Water Act Section 402) require that the final design of all recreation features with impervious or partially pervious surfaces will incorporate effective permanent BMPs for the protection of water quality. The project includes design features that will conform to applicable ordinances and standard conditions established by TRPA and the Lahontan RWQCB. At a minimum, the stormwater design will: ▸ minimize the area of disturbance and coverage for all permanent features; ▸ maximize the use of porous media (e.g., porous pavement, decomposed granite fill) for trail surfaces; ▸ optimize trail slopes for proper drainage; ▸ provide for at-the-source infiltration of roof or other cover runoff; and ▸ provide for collection of runoff from impervious pavements and direct the runoff through oil/water separator(s) and advance treatment prior to discharge to Stream Environment Zones (SEZs).	From project design through construction	Conservancy and its primary contractors for engineering design and construction		
Environmental Commitment 12: Prepare and Implement Traffic Control Plans. To ensure consistency with CSLT Code 26-16 and state safety orders, rules, and regulations of the Division of Industrial Safety including §1598. Traffic Control for Public Streets and Highways, the project includes traffic control plans for construction activities that may encroach on CSLT and California State road rights-of-way. The traffic control plans will follow California Department of Transportation's (Caltrans) Standard Plans, Standard Special Provisions, and Non-Standard Special Provisions for Temporary Traffic Control Systems and will be signed by a professional engineer. Measures typically used in traffic control plans include advertising of planned lane closures, warning signage, a flag person to direct traffic flows when needed, and methods to ensure continued access by emergency vehicles. During project construction, access to existing land uses will be maintained at all times, with detours used as necessary during road closures. Traffic control plans will be submitted to the CSLT Public Works Department for review and approval before construction of project phases whose implementation may cause encroachment on CSLT or California State road rights-of-way. The Traffic Control Plan will address safety conflicts between construction traffic and of local traffic, pedestrians, and bicyclists. The plan will include advance public advisories, construction-period signage, flag personnel, and other special traffic-control actions as necessary. Specific measures contained in the plan include the following. ▸ Distribute or mail flyers to residents in the nearby Al Tahoe, Highlands Woods, and Tahoe Keys subdivisions advising about upcoming project traffic prior to the initiation of construction. ▸ Place advisory signs along construction routes in advance of construction to alert traffic, pedestrian, and bicyclists about the upcoming construction traffic activity. ▸ Install construction area signage on designated haul routes to inform the public of the presence of trucks. ▸ Provide flag personnel at when truck activity is heavy (i.e., more than ten trucks per hour). ▸ Provide information to all truck drivers identifying haul routes, speed limits, location of flaggers, and any other pertinent public safety information. ▸ Monitor truck and traffic conditions to identify traffic congestion, safety concerns regarding truck, vehicle, and pedestrian and bicycle conflicts and adjust management approach as needed.	From project design through construction	Conservancy and its primary contractors for engineering design and construction		

Table 1
Environmental Commitment Tracking Table

Environmental Commitments of the Upper Truckee River and Marsh Restoration Project	Implementation		Completion of Implementation	
	Timing/Schedule	Responsibility	Action	Date Completed
Environmental Commitment 13: Prepare and Implement a Public Outreach Plan. The project includes a Public Outreach Plan (POP) to inform the general public and partnering agencies, such as the CSLT, El Dorado County Vector Control, and El Dorado County Animal Control, of construction-related activities within the Project Area. Further, in consultation with the construction contractor, every effort will be made to maintain access to and within the Study Area, including trail access to Lake Tahoe, insofar as the public's health and safety can be assured. There may be periods of time when it is deemed unsafe for the public to be within the study area and/or on trails to the lake during certain construction activities. These periods of restricted access are alternative and construction season dependent. The POP will include strategies to inform the general public and partnering agencies of access restrictions and their anticipated timelines, alternate locations for passive recreation activities, and site access information. Communication of this information may be through signage at access points, messages posted to the Conservancy website, and Public Service Announcements and news articles in the local and regional newspapers, online and in print.	Prior to and through construction	Conservancy and its primary contractors for construction		
Environmental Commitment 14: Prepare and Implement a Waterway Traffic Control Plan for Alternatives That Affect the Sailing Lagoon and/or all accessible reaches of the Upper Truckee River within the Upper Truckee River and Marsh Restoration Project Area. The project includes a waterway traffic control plan to ensure safe and efficient vessel navigation during construction at the junction of the Sailing Lagoon and the adjacent channel of the Tahoe Keys Marina and within all accessible reaches of the Upper Truckee River within the project area. The plan will include vessel (motorized and unmotorized) traffic control measures to minimize congestion and navigation hazards. Construction areas in the waterway will be barricaded or guarded by readily visible barriers, or other effective means to warn boaters of their presence and restrict access. Warning devices and signage will be consistent with the California Uniform State Marking System and effective during nondaylight hours and periods of dense fog. The Conservancy will maintain safe boat access to public launch and docking facilities, businesses, and residences of the Tahoe Keys Marina and will minimize the partial closure of the waterway. Where temporary channel closure is necessary, a temporary channel closure plan shall be developed. The waterway closure plan shall include procedures for notification of the temporary closure to the United States Coast Guard, boating organizations, Tahoe Keys Marina, boat/kayak rental businesses within the area, and all other effective means of notifying boaters.	Prior to and through construction	Conservancy		

Notes: BMP = best management practice; CEQA = California Environmental Quality Act; Conservancy = California Tahoe Conservancy; NEPA = National Environmental Policy Act; NOX = oxides of nitrogen; PM10 = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less; ROG = reactive organic gases; RWQCB = Regional Water Quality Control Board; TRPA = Tahoe Regional Planning Agency

Source: Data compiled by AECOM in 2015

CEQA and TRPA's Compact (to a lesser extent) requires the adoption of all feasible mitigation measures to reduce significant effects on the environment. NEPA does not require mitigation measures to be adopted for all impacts; however, feasible mitigation implemented to the fullest extent possible and wherever practicable is encouraged. Table 2 includes mitigation measures to be adopted as part of the MMRP requirement meant to ensure that the lead agency enforces the implementation of the mitigation measures by the applicant or in this case itself when it is implementing its own project.

Table 2 contains the following information:

Resource Topic/Impact and Mitigation Number: Lists the mitigation measures by number for each resource topic, as designated in the EIR/EIS/EIS.

Mitigation Measure: Provides the text of the mitigation measures, each of which has been adopted by the California Tahoe Conservancy and incorporated into the project.

Timing/Schedule: Lists the time frame in which the mitigation must take place.

Responsibility: Identifies the entity responsible for implementing the mitigation measure.

Completion of Implementation: The Conservancy is responsible for reporting on implementation of the mitigation measures. The "Action" column is to be used by the Conservancy to describe the action(s) taken to complete implementation. The "Date Completed" column is to be used by the Conservancy to indicate when implementation of the mitigation measure has been completed. The Conservancy, at its discretion, may delegate implementation responsibility or portions thereof to qualified consultants or contractors.

Table 2
Mitigation Measure Tracking Table

Mitigation Measure	Implementation		Completion of Implementation	
	Timing/Schedule	Responsibility	Action	Date Completed
3.4 Biological Resources: Vegetation and Wildlife				
Mitigation Measure 3.4-3: Conduct Protocol-Level Preconstruction Surveys and Avoid or Mitigate Impacts on Tahoe Yellow Cress Plants. To avoid or mitigate potential adverse effects on Tahoe yellow cress (TYC) plants (stems) resulting from construction activities, the following actions will be implemented: (A) A qualified botanical monitor familiar with the vegetation of the Tahoe Basin and identification of TYC will conduct a focused preconstruction survey for TYC in all beach habitat where construction-related ground disturbance could occur during that year. Surveys will be conducted between June 15 and September 30, when TYC is clearly identifiable, and will follow CDFG's *Protocols for Surveying and Evaluating Impacts to Special Status Plant Populations and Natural Communities* (CDFG 2009). Surveys will 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 will be documented in a letter report to the Conservancy and TYC Adaptive Management Working Group (AMWG) that will become part of the project environmental record, and no further actions will be required. (B) If TYC stems are documented during the survey in areas potentially disturbed by construction activities, they will be clearly identified in the field, and if feasible, protected from impacts associated with construction activities. Protective measures will include flagging and fencing of known stem locations and avoidance. If feasible, no construction-related activities will be allowed in areas fenced for avoidance, and construction personnel will be briefed about the presence of the stems and the need to avoid effects on the stems. If all TYC stems are avoided, no further actions will be required. (C) If avoidance of all TYC plants is not feasible, the Conservancy, in coordination with the TYC AMWG, will delineate and fence a mitigation area within the study area, excavate and translocate potentially affected stems, plant additional nursery-grown TYC plants, and monitor and adaptively manage the mitigation area, as described below. The mitigation area will extend from the inland edge of suitable habitat to the location on the edge of Lake Tahoe under the lowest possible lake elevation. If deemed necessary during monitoring, the Conservancy will either relocate or enlarge the mitigation area to achieve mitigation goals. All potentially affected stems will be excavated and translocated to the mitigation area. Translocation will follow, as closely as possible, protocols that have been shown to be effective and described by Stanton and Pavlik (2009), and all translocated stems will be marked and/or mapped to facilitate monitoring. Translocation will be limited to no more than 10 percent of the suitable habitat within the project area. If project activities would impact more than 10 percent of the suitable habitat, then design or construction techniques will be adjusted to ensure no more than 10 percent of the suitable habitat would be affected by translocation. Additional outplanting of container-grown nursery TYC plants to the mitigation area will also occur. Outplanting will occur at a rate of two plants for every one transplanted stem, for a total mitigation rate of 3:1, for combined translocated stems and outplanted container-grown plants. Outplanting of container-grown plants will follow, as closely as possible, protocols that have been shown to be effective as described by Stanton and Pavlik (2009), and all outplanted plants will be marked and/or mapped to facilitate monitoring. Tahoe yellow cress stem translocation and outplanting of container-grown plants will be followed by active monitoring and adaptive management for the remainder of the growing season in which translocation and outplanting occurs, and the following two growing seasons. Monitoring and adaptive management will include the following actions: (1) For the remainder of the growing season in which stem translocation and outplanting or container-grown plants occurs, a qualified botanical monitor familiar with the identification of TYC shall inspect each translocated or outplanted stem at least once per month and record phenology (i.e., life cycle stage) and condition. The Conservancy will consult with the AMWG concerning appropriate measures if significant mortality or vandalism is observed. Additional outplanting will depend on the timing of the observed mortality and the level of the lake. (2) For the two growing seasons following the season in which stem translocation and container-grown plant outplanting occurred, success of mitigation efforts will be evaluated based on the ratio of TYC stems occurring within the mitigation area. Immediately following translocation and outplanting activities, a qualified botanical monitor shall conduct a complete inventory of TYC stems in the mitigation area. During each of the two growing seasons following the season in which translocation and outplanting occurs, a qualified botanical monitor shall conduct a complete inventory of the number of TYC stems present in the mitigation area. Surveys will be conducted when TYC is clearly identifiable. If the ratio of stems in the mitigation area is less than the ratio recorded immediately following translocation and outplanting activities, then the Conservancy will conduct additional outplanting of container-grown TYC plants to achieve at least the same ratio of TYC stems in the mitigation area. If deemed necessary based on monitoring results, the Conservancy will either relocate or enlarge the mitigation area to achieve mitigation goals. The TYC AMWG and CDFG are continuing to develop a standardized monitoring protocol for TYC. Therefore, in an effort to be consistent with the developed protocol, before project implementation, the Conservancy will coordinate with the TYC AMWG and CDFG to finalize the monitoring protocol for evaluating mitigation efforts.	Prior to and post construction	Conservancy and its primary contractors for construction		

Table 2
Mitigation Measure Tracking Table

Mitigation Measure	Implementation		Completion of Implementation	
	Timing/Schedule	Responsibility	Action	Date Completed
Mitigation Measure 3.4-8A: Conduct Preconstruction Surveys for Nesting Special-Status Birds (Yellow Warbler, Willow Flycatcher, Waterfowl, and Long-Eared Owl), and Implement Buffers if Necessary. For construction activities that would occur in suitable habitat during the nesting season (April 1 through August 31), a qualified wildlife biologist will conduct focused surveys for active nest sites of the yellow warbler, willow flycatcher, waterfowl, and long-eared owl. The biologist will be able to identify Sierra Nevada bird species audibly and visually. The conduct of these surveys will conform to the following guidelines: ▸ **Yellow warbler, waterfowl, and long-eared owl.** Focused surveys for yellow warbler, waterfowl, and long-eared owl nests will be conducted by a qualified wildlife biologist within 14 days before construction activities are initiated each construction season. The preconstruction survey for yellow warbler, waterfowl, and long-eared owl nests will be conducted using a nest-searching technique appropriate for the species. For yellow warbler, an appropriate technique will involve first conducting point counts in suitable riparian habitat to determine occupancy, followed by nest searching if the species is present. For long-eared owl, surveys will involve tape playbacks of recorded long-eared owl calls. ▸ **Willow Flycatcher.** For construction activities initiated in suitable breeding habitat for the willow flycatcher after May 31, a preconstruction survey for nesting willow flycatchers will be conducted each construction season. The survey will follow *A Willow Flycatcher Survey Protocol for California* (Bombay et al. 2003). The protocol requires a minimum of two survey visits to determine presence or absence of the willow flycatcher: one visit during survey period 2 (June 15–25) and one during either survey period 1 (June 1–14) or period 3 (June 26–July 15). If active yellow warbler, willow flycatcher, or long-eared owl nests are located during the preconstruction surveys, the biologist will notify TRPA and CDFG. If a yellow warbler or willow flycatcher nest is located, construction will be avoided within 500 feet of the nest (or at a distance directed by CDFG) to avoid disturbance until the nest is no longer active based on monitoring. If an active long-eared owl nest is located, construction within 0.25 mile of the nest site (or at a distance directed by CDFG) will be delayed until the nest is no longer active based on monitoring. If active waterfowl nests are located during preconstruction surveys, the biologist will notify TRPA, and to the extent feasible, construction will be avoided within 500 feet of active nests.	Prior to each construction season	Conservancy and its primary contractor for construction		
Mitigation Measure 3.4-8B: Conduct Preconstruction Surveys for Special-Status Bats, Avoid Removal of Important Roosts, and Implement a Limited Operating Period If Necessary. Bat surveys will be conducted by a qualified wildlife biologist within 14 days before any tree removal or clearing each construction season. Locations of vegetation and tree removal or excavation will be examined for potential bat roosts. Potential roost sites identified will be monitored on two separate occasions for bat activity, using bat detectors to help identify species. Monitoring will begin 30 minutes before sunset and will last up to two hours at any potential roost identified. Removal of any significant roost locations discovered will be avoided to the extent feasible. If avoidance is not feasible, roost sites will not be disturbed by project activities until September 1 or later, when juveniles at maternity roosts are able to fly.	Prior to each construction season	Conservancy and its primary contractor for construction		
3.7 Human Health/Risk of Upset				
Mitigation Measure 3.7-2A: Prepare and Implement a Health and Safety Plan and Provide Qualified Oversight of Fill Removal Related to Excavation Activities at the Corporation Yard. ▸ The Conservancy and their contractor(s) will develop and implement a health and safety plan (HASP) that clearly notifies all workers of the potential to encounter hazardous materials during demolition and construction activities. The HASP will identify proper handling and disposal procedures for contaminants expected to be on-site as well as maps and phone numbers for local hospitals and other emergency contacts. All protocols outlined in the HASP will be complied with throughout project implementation. ▸ Any stored hazardous materials present in the study area will be removed and disposed at appropriately permitted locations prior to construction. A qualified professional (e.g., geologist or engineer) will oversee fill excavation activities and abandoned UST tank removal at the Corporation Yard in order to properly identify any potentially contaminated soils that may be present. Excavation of the UST must comply with El Dorado County UST Ordinance No. 4332. If contaminated soils are found, implement Mitigation Measure 3.7-2b (Alt 1). ▸ UST tank removal will include measures that ensure the safe transport, and disposal methods. Remediation actions, if necessary, will be defined, in consultation with the EDCDEM, DTSC, and Lahontan Regional Water Quality Control Board (RWQCB), and implemented during construction.	From project design through construction	Conservancy and its primary contractors for engineering design and construction		

Table 2
Mitigation Measure Tracking Table

Mitigation Measure	Implementation		Completion of Implementation	
	Timing/Schedule	Responsibility	Action	Date Completed
Mitigation Measure 3.7-2B: Notify Appropriate Federal, State, and Local Agencies if Contaminated Soils Are Identified, and Complete Recommended Remediation Activities. To reduce health hazards associated with potential exposure to hazardous substances, the Conservancy would implement the following measures if necessary: ► The Conservancy and its contractor(s) will notify the appropriate federal, state, and local agencies if evidence of previously undiscovered soil or groundwater contamination (e.g., stained soil, odorous groundwater) is encountered during construction activities. Any contaminated areas will be cleaned up in accordance with recommendations made by the EDCDEM, the Lahontan RWQCB, DTSC, or other appropriate federal, state, or local regulatory agencies, as generally described above. ► The Conservancy will prepare a site plan for remediation activities appropriate for proposed land uses, including excavation and removal of on-site contaminated soils, and needed redistribution of clean fill material on the study area. The plan will include measures that ensure the safe transport, use, and disposal of contaminated soil and building debris removed from the site. If contaminated groundwater is encountered during site excavation activities, the construction contractor will report the contamination to the appropriate regulatory agencies, dewater the excavated area, and treat the contaminated groundwater to remove contaminants before discharge into the sanitary sewer system. The construction contractor will be required to comply with the plan and applicable federal, state, and local laws. The plan will outline measures for specific handling and reporting procedures for hazardous materials, and disposal of hazardous materials removed from the site at an appropriate off-site disposal facility.	From project design through construction	Conservancy and its primary contractors for engineering design and construction		
3.9 Geomorphology and Water Quality				
Mitigation Measure 3.9-2: Adaptively Manage Potential Flood Disturbance in the Interim Period after Construction. The Conservancy will develop and implement an adaptive management plan focused on the short-term water quality degradation that could result within the first five years after construction. The plan will identify specific data collection and monitoring protocols, describe decision-making processes and authorities, and list thresholds for corrective actions. The performance criteria for the corrective actions will focus on preventing initial flood damage or turbidity effects from becoming persistent, recurring, or chronic, whether the corrective action is needed at the initial damage site or at other locations that could be affected by channel response to the initial damage.	From project construction through operations	Conservancy and its primary contractors for engineering design and construction.		
Mitigation Measure 3.9-7: Monitor and Adaptively Manage Delivery of Coarse Sediment to Cove East and Barton Beaches. During the period of channel adjustments following construction, and until the streambed profile attains a relatively continuous slope within the study area, the Conservancy will monitor the supply of coarse sediment entering the study area, deposition within the treated reaches, and beach-face erosion at least once a year. Specifically, the Conservancy will make observations of net deposition or scour during low-water conditions. If substantial coarse-sediment deposition is occurring within large portions of the study area or beach-face erosion has worsened, and coarse-sediment input from upstream has not decreased, the Conservancy will respond with site-specific adaptive management. The Conservancy will develop and implement an adaptive management plan that will review and evaluate monitoring data and project conditions and recommend follow-up actions. Such actions could include continued or revised monitoring, corrective actions or interventions, and documentation. If coarse-sediment supplementation to site beaches or the nearshore is recommended, the coarse sediment shall be similar in lithology, size, and shape to native sands; washed/free of fine sediments or contaminants; and obtained from a permitted borrow/quarry location.	From project construction through operations	Conservancy and its primary contractors for engineering design and construction.		
3.18 Cumulative Impacts				
Mitigation Measure 3.18-C29: Implement an Interim Coordinated Adaptive Management Plan on the Upper Truckee River. The sponsors (landowners/funders) for all the foreseeable river restoration projects that would be constructed on the Upper Truckee River shall develop and implement an interim coordinated adaptive management plan focused on potential short-term water quality degradation that may result if unexpectedly large flood flows occur within the first five years after construction. The plan shall be jointly developed to address issues that cross project boundaries and look at the system as a whole. The plan shall be in force for the interim period of channel adjustment and initial flood vulnerability (i.e., at least five years but no more than ten years from the end of construction—potentially as long as needed to allow for expected natural channel adjustments). The plan shall identify specific data collection and monitoring protocols, describe decision-making processes and authorities, and advise on corrective actions. The performance criteria for the corrective actions shall focus on preventing damage or turbidity effects from becoming a persistent, recurring, or chronic source, whether the corrective action is needed at the initial damage site or at other location(s) that could be affected by channel response to the initial damage. The plan shall include a discussion of responsibilities for implementing corrective actions, with a starting assumption that each project sponsor would be financially responsible for implementing the plan within their project reach. However, it is possible that problems occurring in one reach may affect other reaches and that the group will decide, following review of monitoring data, that mitigation should be applied in a reach different from the one where the problems are initially observed to prevent future or chronic water quality effects.	From project construction through operations	Conservancy and its primary contractors for engineering design and construction.		

ATTACHMENT 4

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

Initial Study
Final Environmental Impact Report/ Environmental Impact Statement/
Environmental Impact Statement (Final EIR/EIS/EIS)

On attached CD

Exhibit A
Upper Truckee River and Marsh Restoration Project Map

State Clearinghouse Identification #2007032099