FINAL
Environmental Impact Report/
Environmental Impact Statement/
Environmental Impact Statement
Volume IV

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

FINAL
Environmental Impact Report/
Environmental Impact Statement/
Environmental Impact Statement
Volume IV

Upper Truckee River and Marsh Restoration Project

SCH# 2007032099

Lead Agencies:

California Department of
General Services

Mailstop 3-509
P.O. Box 989052
West Sacramento, CA 95798-9052

Attn: Stephanie Coleman,

RESD-Environmental Services,
3rd floor
Senior Environmental Planner
916/376-1702

California
Tahoe Conservancy

1061 Third Street
South Lake Tahoe, CA 96150

Attn: Scott Carroll
Associate Environmental Planner
Watershed/SEZ Restoration
Program
530/543-6062

Tahoe Regional
Planning Agency
Lake Tahoe Environmental
Improvement Program

P.O. Box 5310
Stateline, NV 89449

Attn: Shannon Friedman
Senior Planner
775/589-5205
775/589-5233

U.S. Department of Interior
Bureau of Reclamation

2800 Cottage Way, MP-152
Sacramento, CA 95825
Attn: Rosemary A. Stefani, Ph.D.
Lake Tahoe Program Manager
916/978-5045

Prepared by:

City Hall Tower, 16th Floor
One East First Street
Reno, NV 89501

775/337-9565

Contact:
Danielle Hughes
530/721-1070

295 U.S. Highway 50, Suite 1
Zephyr Cove, NV 89448

Contact:
Virginia Mahacek
775/588-9069

December 2015

P 00110066.04

TABLE OF CONTENTS

Section		Page
1	**INTRODUCTION AND STATEMENT OF PURPOSE AND NEED**	**1-1**
1.1	Agency Roles and Responsibilities	1-2
1.2	Project Analyzed in the Draft EIR/EIS/EIS	1-5
1.3	Project History and Planning Context	1-5
1.4	Project Purpose, Need, and Objectives	1-9
1.5	CEQA, NEPA, and TRPA Code Requirements for Responding to Comments	1-11
1.6	Requirements for document Certification and Future Steps in Project Approval	1-11
1.7	Organization and Format of the Final EIR/EIS/EIS	1-13
1.8	Acronyms and Other Abbreviations	1-13
2	**PROJECT DESCRIPTION**	**2-1**
2.1	Selecting a Preferred Alternative	2-1
2.2	Resource Management	2-18
2.3	Monitoring	2-18
2.4	Construction	2-21
2.5	Environmental Commitments	2-27
3	**MASTER RESPONSES**	**3-35**
3.1	Master Response Categories	3-35
4	**COMMENTS AND INDIVIDUAL RESPONSES**	**4-1**
4.1	Introduction	4-1
4.2	Format of Comments and Responses	4-1
4.3	Lists of Commenters	4-1
4.4	Comments and Responses on the 2013 Draft EIR/EIS/EIS	4-5
5	**REVISIONS TO THE DRAFT EIR/EIS/EIS**	**5-1**
5.1	Global Revisions	5-1
5.2	Revisions to Chapter 1, “Introduction And Statement Of Purpose And Need”	5-1
5.3	Revisions to Section 3.3, “Cultural Resources”	5-2
5.4	Revisions to Section 3.4, “Biological Resources: Vegetation and Wildlife”	5-2
5.5	Revisions to Section 3.8, “Hydrology and Flooding”	5-17
5.6	Revisions to Section 3.9, “Geomorphology and Water Quality”	5-21
5.7	Revisions to Section 3.12, “Public Services”	5-27
5.8	Revisions to Section 3.18, “Cumulative Impacts”	5-27
5.9	Revisions to Chapter 4.0, “Other required sections”	5-38
5.10	Revisions to Chapter 5.0, “Compliance, Consultation, and Coordination”	5-39
5.11	Revisions to Chapter 7, “References Cited”	5-42
5.12	Revisions to Appendix H, “Wildlife Species and Associated Plant Communities and Aquatic Ecosystems at the Upper Truckee Marsh”	5-42

6 LIST OF PREPARERS FOR THE FINAL EIR/EIS/EIS 6-1
6.1 California Tahoe Conservancy 6-1
6.2 RESD, California Department of General Services 6-1
6.3 TRPA 6-1
6.4 U.S. Bureau of Reclamation 6-1
6.5 AECOM 6-1
6.6 Cardno 6-2

7 REFERENCES 7-1
7.1 Chapter 1, "Introduction and Statement of Purpose and Need" 7-1
7.2 Chapter 2, "Project Description" 7-2
7.3 Chapter 3, "Master Responses" 7-2
7.4 Chapter 4, "Comments and Individual Responses" 7-3
7.5 Chapter 5, "Revisions to the Draft EIR/EIS/EIS" 7-4
7.6 Chapter 6, "List of Preparers" 7-4

8 INDEX 8-1

Appendices

A Preferred Alternative Schematics
B Detailed Hydraulic Modeling Analysis
C Mitigation Monitoring and Reporting Program
D Additional Responses to Comments Received after the Comment Period

Exhibits

Exhibit 1-1 Regional Location 1-6
Exhibit 1-2 Study Area Map 1-7
Exhibit 2-1 Eastern and Western Recreation Access Areas 2-8
Exhibit 2-2 Proposed Infrastructure for Recreation and Public Access Elements of the Preferred Alternative 2-19
Exhibit 2-3 Preferred Alternative—Storage/Staging and Access Plan 2-23
Exhibit 3.1-1. 100-Year Flood WSEL Increases with Preferred Alternative 3-37
Exhibit 3.1-2. 100-Year Flood WSEL Decreases with Preferred Alternative 3-38

Tables

Table 1-1 Acronyms and Other Abbreviations 1-14
Table 2-1 Scale Used to Rate the Alternatives Evaluated in the Draft EIR/EIS/EIS 2-6
Table 2-2 Summary of Benefits, Public Comment, and Feasibility Ratings for Each Alternative 2-9
Table 2-3 Elements Included in the Action Alternatives[1] 2-9
Table 2-4 Staging Area Temporary Impacts 2-24
Table 2-5 Sequence and Duration of Activities for Engineered Elements of the Preferred Alternative . 2-24
Table 2-6 Environmental Commitments of the Upper Truckee River and Marsh Restoration Project ... 2-27
Table 4-1 List of Commenters on the 2013 Draft EIR/EIS/EIS 4-1
Table 4-2 Summary of the Ability of the Preferred Alternative to Meet Lahontan Regional Water Quality Control Board Exemption Criteria 4-45
Table 3.4-1 Special-Status Plant Species Known From or With Potential to Occur in the Upper Truckee River and Wetlands Restoration Project Study Area 5-4
Table 3.4-2 Special-Status Wildlife Species Evaluated for the Upper Truckee River and Marsh Project 5-6
Table 3.8-4 Surveyed and Simulated Water Surface Elevations for the January 1997 Flood 5-21

This page intentionally left blank.

1 INTRODUCTION AND STATEMENT OF PURPOSE AND NEED

This document is a joint final environmental impact report/environmental impact statement/environmental impact statement (Final EIR/EIS/EIS) prepared for the Upper Truckee River and Marsh Restoration Project (hereinafter referred to as "the project"). This Final EIR/EIS/EIS has been prepared in compliance with the California Environmental Quality Act (CEQA), the National Environmental Policy Act of 1969 (NEPA), and the Tahoe Regional Planning Agency (TRPA) Compact and Code of Ordinances. The project also serves as the "proposed action" under NEPA and the "proposed project" under CEQA and the TRPA Code of Ordinances.

This Final EIR/EIS/EIS has been prepared by the California Tahoe Conservancy (Conservancy) as lead agency under CEQA, with assistance from the California Department of General Services, Real Estate Services Division; the U.S. Department of the Interior Bureau of Reclamation (Reclamation), as federal lead agency under NEPA; and TRPA as lead agency in accordance with the TRPA Compact and Code of Ordinances.

The relevant statutes, regulations, and ordinances guiding the preparation of this Final EIR/EIS/EIS are:

- CEQA (California Public Resources Code [PRC] Section 21000 et seq.);
- the State CEQA Guidelines (California Code of Regulations [CCR] Title 14, Division 6, Chapter 3), including Section 15222, "Preparation of Joint Documents");
- NEPA, as amended (Public Law [PL] 91-190, 42 United States Code 4321–4347, January 1, 1970, as amended by PL 94-52 [July 3, 1975], PL 94-83 [August 9, 1975], and PL 97-258, Section 4[b] [September 13, 1982]);
- Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of NEPA—Code of Federal Regulations (CFR) Title 40, Section 1500 et seq., including Sections 1502.25, 1506.2, and 1506.4 (authority for combining federal and state environmental documents);
- the Bureau of Reclamation NEPA Handbook. Available: http://www.usbr.gov/nepa;(Reclamation 2012);
- Article VII of the TRPA Compact (Public Law 96-551, as revised in 1980);
- Chapters 3 and 4 of the TRPA Code of Ordinances; and
- Article 6 of the TRPA Rules of Procedure.

CEQA, NEPA, and the TRPA Compact require a lead agency that has completed a respective draft environmental impact report/environmental impact statement/environmental impact statement (Draft EIR/EIS/EIS) to consult with and obtain comments from public agencies (cooperating, responsible, and trustee agencies) that have legal jurisdiction over the project. The lead agency also must give the general public opportunities to comment on the Draft EIR/EIS/EIS.

In February 2013, the Conservancy, Reclamation, and TRPA released the Draft EIR/EIS/EIS for a 60-day public review and comment period. Public hearings were held at the TRPA Advisory Planning Commission meeting on March 13, 2013, and at the Governing Board meeting on March 27, 2013, to present the project alternatives and to receive public comments. The public hearings were recorded and public comments transcribed. Written comments were received from federal, state, regional, and local agencies and from businesses, organizations, and individuals. This Final EIR/EIS/EIS has been prepared to respond to comments received on the 2013 Draft EIR/EIS/EIS for the project and to present the Preffered Alterntive.

1.1 AGENCY ROLES AND RESPONSIBILITIES

1.1.1 LEAD AGENCIES

CALIFORNIA TAHOE CONSERVANCY

The Conservancy is the lead agency under CEQA and the proponent of the project. An independent agency within the State of California's Natural Resources Agency, the Conservancy was established in its present form by state law in 1984 (Chapter 1239, Statutes of 1984). This agency was established to develop and implement programs through acquisitions, grants, and site improvements. The Conservancy's mission is to preserve, protect, restore, enhance, and sustain the unique and significant natural resources and recreational opportunities of the Tahoe Basin. Its primary objectives are to:

(1) protect the natural environment of the basin, with priority placed on preserving the exceptional clarity and quality of the waters of Lake Tahoe;

(2) preserve and enhance the broad diversity of wildlife habitat in the Tahoe Basin; and

(3) increase public access and recreation opportunities for visitors to the lake and other natural areas.

TAHOE REGIONAL PLANNING AGENCY

TRPA is the primary permitting agency and the lead agency under the TRPA Compact.. TRPA is a bistate regional planning agency created in 1969 by federal law to oversee development on both the California and Nevada sides of Lake Tahoe. TRPA's mission is to lead the cooperative effort to preserve, restore, and enhance the unique natural and human environment of the Lake Tahoe Region now and in the future. To receive construction permits, the project would be required to comply with TRPA's Regional Plan and Code of Ordinances. Permitting requirements include the Environmental Improvement Program (EIP) Permit, Land Capability and Coverage Verifications, and Historic Determination.

In addition, in accordance with the TRPA Code of Ordinances, if implementing a project would result in an exceedance of an identified threshold, mitigation must be imposed to reduce the impact and maintain the threshold. Under Chapter 4 of the Code of Ordinances, written findings must be made regarding all significant environmental impacts and their associated mitigation measures, with substantial evidence provided in the record of review before final project approval. To approve a project, TRPA must make all of the following specific findings:

(A) The project is consistent with and will not adversely affect implementation of the Regional Plan, including all applicable Goals and Policies, plan area statements and maps, the Code, and other TRPA plans and programs.

(B) The project will not cause the environmental threshold carrying capacities to be exceeded.

(C) Wherever federal, state, or local air and water quality standards apply for the region, the strictest standards shall be attained, maintained, or exceeded pursuant to Article V(d) of the Tahoe Regional Planning Compact.

The project meets or exceeds all of the standards referred to above in finding (C).

U.S. DEPARTMENT OF THE INTERIOR, BUREAU OF RECLAMATION

Reclamation is the lead agency under NEPA. The federal agency was created in 1902 to provide water for 17 western states. Reclamation's mission is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

The project has received federal funding for planning purposes and may receive funding from Reclamation for construction; the project therefore requires the preparation of an EIS. It also requires the preparation of an EIS because its development would require federal permits or concurrence for one or more of the following activities: discharges of fill material into waters of the United States, which is an activity regulated under Section 404 of the Clean Water Act, activities affecting plant or animal species protected by the Federal Endangered Species Act (ESA) (16 USC 1531 et seq.), and for impacts on cultural resources pursuant to Section 106 of the National Historic Preservation Act.

1.1.2 TRUSTEE, RESPONSIBLE, AND COOPERATING AGENCIES

Other federal, state, and local agencies are involved in the review and approval of the project, including trustee and responsible agencies under CEQA and cooperating agencies under NEPA. Under CEQA, a trustee agency is a state agency that has jurisdiction by law over natural resources that are held in trust for the people of the State of California. A responsible agency is an agency other than the lead agency that has legal responsibility for carrying out or approving a project or elements of a project (PRC Section 21069). The CEQA lead agency consults with trustee and responsible agencies to gain their input and enable the agencies to review and comment on the draft document. Responsible agencies use the CEQA document in their decision making.

Under NEPA, a cooperating agency can be any federal agency other than the federal lead agency that has legal jurisdiction or special expertise with respect to any environmental impact involved in an action. Cooperating agencies are designated by agreement between the NEPA lead agency and the cooperating agency. They are encouraged to actively participate in the lead agency's NEPA process, review and comment on the NEPA document, and use the document when making decisions on the project.

Several agencies other than the Conservancy, Reclamation, and TRPA have jurisdiction over the implementation of the elements of the project, as identified below.

FEDERAL COOPERATING AGENCIES

- None

STATE RESPONSIBLE AGENCIES

- California Air Resources Board
- California Department of Fish and Wildlife
- California Department of Transportation
- Lahontan Regional Water Quality Control Board
- State Historic Preservation Officer
- California State Lands Commission

STATE TRUSTEE AGENCIES

- California Department of Fish and Wildlife
- California State Lands Commission

OTHER INTERESTED AGENCIES

- U.S. Army Corps of Engineers
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- U.S. Department of Transportation, Federal Aviation Administration

1.1.3 REGULATORY REQUIREMENTS, PERMITS, AND APPROVALS

The following list identifies permits and other approval actions for which this EIR/EIS/EIS may be used during agency decision-making processes or represent permits or approvals or both that will be needed for the proposed project. The following actions may be under the purview of regulatory agencies other than the lead agencies.

FEDERAL ACTIONS/PERMITS

- **Reclamation:** The Record of Decision (ROD) will state the federal action to be implemented and will discuss all factors leading to the decision to potentially approve funding for construction.
- **State Historic Preservation Office:** Consultation for impacts on cultural resources pursuant to Section 106 of the National Historic Preservation Act (NHPA).
- **U.S. Army Corps of Engineers:** Department of the Army permit under Section 404 of the Clean Water Act (CWA) for discharges of dredged or fill material into waters of the United States.
- **U.S. Environmental Protection Agency:** Review of the EIS, and filing and noticing; concurrence with the Section 401 CWA permit.
- **U.S. Fish and Wildlife Service:** Consultation under the federal Endangered Species Act and issuance of incidental-take authorization for the take of federally listed endangered and threatened species, if take of a species is anticipated.

STATE ACTIONS/PERMITS

- **California Department of Fish and Wildlife:** Potential consultation under the California Endangered Species Act and issuance of take authorization, streambed alteration agreement, and protection of raptors (California Fish and Game Code Sections 2081, 1602, and 3503.5, respectively).
- **California Department of Transportation:** Possible encroachment permits for work involving the U.S. Highway 50 right-of-way.
- **Lahontan Regional Water Quality Control Board (Region 6):** National Pollutant Discharge Elimination System construction stormwater permit (notice of intent to proceed under general construction permit) for disturbance of more than 1 acre, discharge permit for stormwater, general order for dewatering, and Section 401 CWA certification or waste discharge requirements.

REGIONAL ACTIONS/PERMITS

- **TRPA:** Construction permits, including the Environmental Improvement Program (EIP) Permit, Land Capability and Coverage Verifications, and Historic Determination.

LOCAL ACTIONS/PERMITS

- **El Dorado County Air Pollution Control District:** Oversees Rule 223 for fugitive dust to reduce the amount of particulate matter entrained in the ambient air by anthropogenic (human-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions.
- **City of South Lake Tahoe:** Regulates grading on both public and private property within the South Lake Tahoe city limits to safeguard life, limb, health, property, and public welfare and avoid pollution of watercourses caused by surface runoff, or by aerial deposition of pollutants generated from the permit area on or across the permit area.

1.2 PROJECT ANALYZED IN THE DRAFT EIR/EIS/EIS

The Conservancy, Reclamation, and TRPA are pursuing a restoration project along the most downstream reach of the Upper Truckee River, next to Lake Tahoe (Exhibit 1-1). The study area for the project is generally bounded by U.S. Highway 50 and the Highland Woods neighborhood on the south, the Al Tahoe neighborhood on the east, the Tahoe Island/Sky Meadows and Tahoe Keys neighborhoods and the TKPOA Corporation Area on the west, and Lake Tahoe to the north (Exhibit 1-2).

The study area for the project is approximately 592 acres and includes parcels owned by the Conservancy, other public agencies, and private landowners (Exhibit 1-2). It includes the downstream reaches of Trout Creek and the Upper Truckee River; adjacent wetland (Upper Truckee Marsh) and upland habitats; and the project site for the Lower West Side Wetlands Restoration Project (LWS Project), which is located in the northwest portion of the study area, just east of the Tahoe Keys Marina. The primary purpose of the Upper Truckee River and Marsh Restoration Project is to restore natural geomorphic processes and ecological functions along this reach of river.

The Upper Truckee River and Marsh Restoration Project is identified in TRPA's EIP as a project that is necessary to restore and maintain environmental thresholds for the Tahoe Basin. EIP projects are designed to achieve and maintain environmental threshold carrying capacities that protect the Tahoe Basin's unique and valued resources. As described in Chapter 2, "Project Description," an extensive evaluation and restoration planning process has been conducted to identify potentially feasible approaches for recreation access and restoration of the river and marsh.

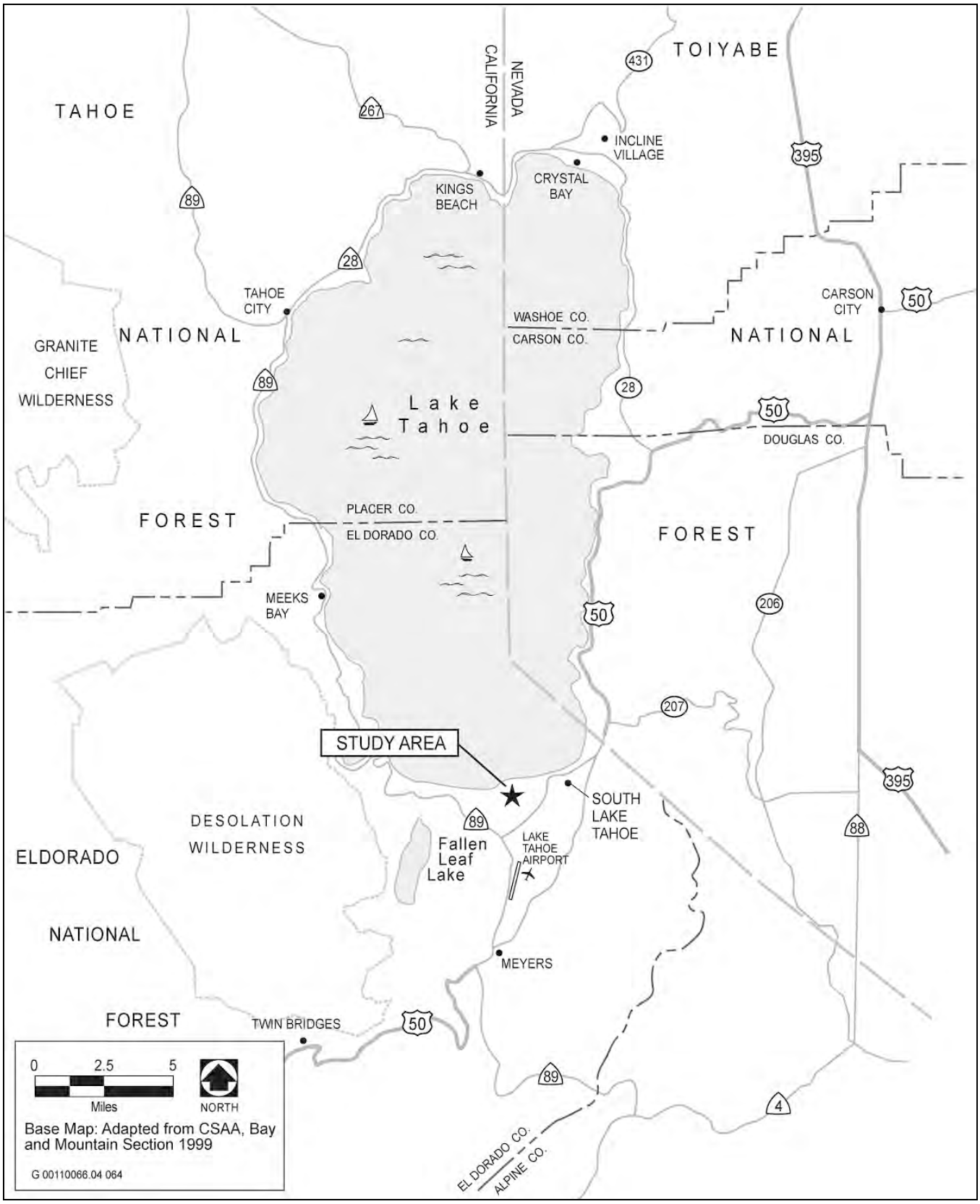
1.3 PROJECT HISTORY AND PLANNING CONTEXT

Restoration planning for the Upper Truckee Marsh and Restoration Project began in the early 1990s with studies conducted by the University of California, Davis. In 1995, after input from State responsible and other interested agencies, the Conservancy commissioned a restoration planning and design study, which identified a tentatively preferred river restoration concept two years later. The study determined that river restoration would require using the entire Upper Truckee Marsh east of the Tahoe Keys Marina and subdivision. At that time the Marsh's center and east side were privately owned, so the tentatively selected concept could not be pursued.

In 1998, the Conservancy began planning and designing an initial phase of wetland restoration, the LWS Project. The LWS Project was located on a 23-acre portion of a study area on the west side of the Upper Truckee River near Lake Tahoe. In this area, the Marsh had been filled during the construction of the adjacent Tahoe Keys development in the 1960's (Exhibit 1-2). After careful investigations, planning, and design, followed by extensive environmental review and community outreach, the Conservancy approved restoration of 12 acres of wetland on the 23-acre site through fill removal as the LWS Project in 2001. The removed fill was used to restore a former quarry at Washoe Meadows State Park in Meyers, California. Construction began in summer 2001 and was completed in summer 2003.

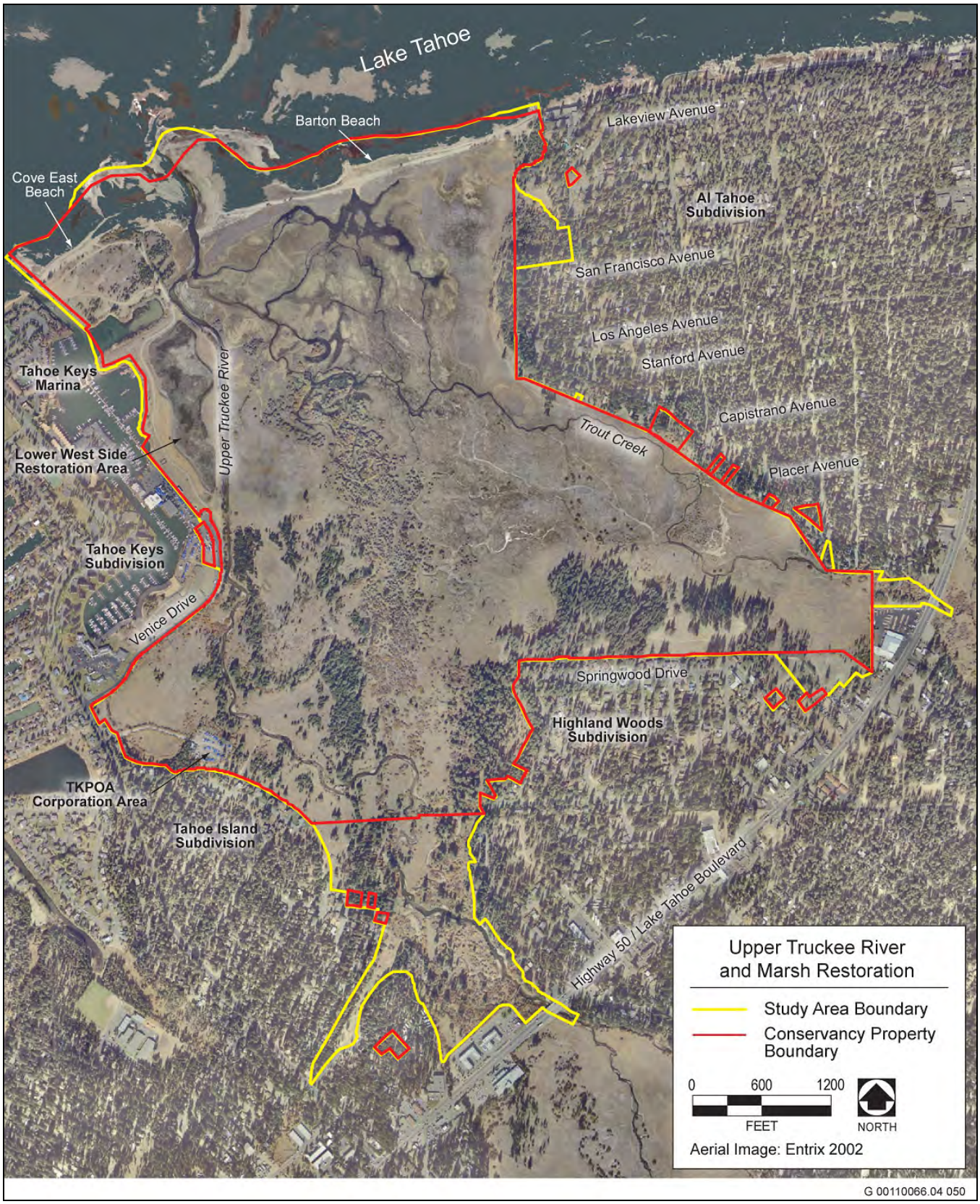
In 2000, the Conservancy purchased 311 acres of land in the center and east side of the Upper Truckee Marsh from a private party, bringing nearly the entire Marsh into public ownership. Currently, the Conservancy owns most of the study area, including the marsh and meadows surrounding the lower reach of Trout Creek. Restoration concepts encompassing the Marsh and the lower reach of the Upper Truckee River have been developed since the acquisition. As part of this process, the Conservancy has planned for public access facilities and recreation use management for the river, marsh, and beach.

Development of the Upper Truckee River and Marsh Restoration Project has proceeded through several planning stages. Initially, the Conservancy defined project objectives and desired outcomes to direct the restoration planning process. The Conservancy evaluated and documented the study area's existing natural processes and functions to begin the formulation and evaluation of alternative plans. This evaluation made it possible to identify potential restoration opportunities and constraints.



Source: Data compiled by AECOM in 2013

Exhibit 1-1 **Regional Location**



Source: Data compiled by AECOM in 2013

Exhibit 1-2 **Study Area Map**

With detailed information about the river and Marsh processes and ecological functions, the Conservancy hosted a design charrette (i.e., interactive workshop) for agencies and other stakeholders to identify the spectrum of potentially feasible restoration ideas to be considered during the development of concept plan alternatives. Four alternative concept plans, all developed to be potentially feasible, were created to represent a reasonable range of restoration approaches and levels of public access and recreation facilities. These concepts were refined through hydrologic modeling, review by regulatory agencies, development of schematic designs, and monitoring. The four concepts generated by this extensive planning process became the four action alternatives evaluated with the No-Project/No-Action Alternative in the Draft EIR/EIS/EIS. After input from state responsible and other interested agencies and public comments provided on the Draft EIR/EIS/EIS and through additional outreach efforts, the Conservancy recommended alternative components to be brought forward into the Preferred Alternative. The development process for the selection of the alternatives to be studied in detail is further described in Section 2.12, "Screening Methodology".

To date, key stages of the Upper Truckee River and Marsh Restoration Project have consisted of:

- evaluating existing natural processes and functions of the Upper Truckee River and Marsh in 2000 and 2001;
- establishing project objectives and desired outcomes in 2002 and updating them in 2005;
- defining restoration opportunities and constraints in 2002 and 2003;
- conducting a restoration design charrette in 2003 to receive input from stakeholders on project priorities, concerns, and constraints, and design ideas;
- conducting updated hydraulic modeling studies to support the development and evaluation of alternatives, and the initial development and comparative evaluation of four conceptual restoration alternatives in 2004 and 2005;
- completing regulatory agency review of alternative concepts for key issues and regulatory requirements in 2005;
- further refining and evaluating the alternatives and preparing a concept plan report in 2006;
- developing detailed schematic design drawings in 2007;
- preparing a comprehensive monitoring plan in 2008 that described a 10-year monitoring period for the project to characterize baseline conditions, track project performance relative to objectives, establish tentative approaches to monitoring for regulatory requirements and construction impacts, and provide information for adaptive management;
- analyzing environmental impacts of the five alternatives and preparing the Draft EIR/EIS/EIS in 2013;
- conducting project outreach to receive input from stakeholders on project priorities, concerns, and constraints, and design ideas;
- developing selection criteria, which was peer reviewed by a Science Review Panel and Technical Advisory Group to assist the Conservancy in recommending the Preferred Alternative presented in this Final EIR/EIS/EIS; and
- conducting updated hydraulic modeling of the Preferred Alternative in response to comments on the Draft EIR/EIS/EIS.

1.4 PROJECT PURPOSE, NEED, AND OBJECTIVES

NEPA regulations require that an EIS contain a statement of the purpose and need that "briefly specif[ies] the underlying purpose and need to which the agency is responding in proposing the alternatives, including the proposed action" (40 CFR 1502.13). The State CEQA Guidelines require that the project description contain a clear statement of the project objectives, including the underlying purpose of the project (14 CCR Section 15124[b]). In the TRPA Compact and Code of Ordinances, there are no requirements specifically addressing the description of a project's purpose and need, or a project's objectives.

1.4.1 PURPOSE AND NEED

Past actions have created a need to restore river and floodplain ecosystems in the Tahoe Basin to improve the clarity of Lake Tahoe and the ecological functions of riparian, wetland, and floodplain ecosystems, including the provision of wildlife habitat. Lake Tahoe is designated as an Outstanding National Resource Water, renowned worldwide for its clarity and purity (Lahontan RWQCB 1995). However, Lake Tahoe's clarity has declined by nearly 20 percent since 1968. Studies over the last three decades suggest that the reduction in water clarity of Lake Tahoe is correlated with the delivery of fine sediments from various watersheds in the basin and increased phytoplankton productivity, which in turn has been attributed to an increase in nutrients, especially nitrogen and phosphorus (Goldman 1974; Reuter and Miller 2000; Coats and Goldman 2001; Rowe et al. 2002; Simon et al. 2003; Lahontan RWQCB and Simon 2006; California Water Boards and NDEP 2007). Stringent water quality goals and watershed regulations have been followed and mitigation and restoration measures implemented, particularly since the 1980s. From the late 1960s through 1998, Lake Tahoe lost its water clarity at a rate of nearly 9 inches per year and has failed to meet transparency and clarity standards (Lahontan RWQCB and NDEP 2007:25). Since 2003, annual-average and winter-average lake clarity levels have been improving gradually on a yearly basis. However, 2013 readings represent a 5-foot decrease over the previous year because of weather variability (UCD 2014).

The Upper Truckee River, which drains the largest watershed in the Tahoe Basin, has been substantially altered by land practices during the past 150 years. Throughout its watershed, the river has experienced ecological degradation typical of what has occurred elsewhere in the Tahoe Basin. It has been modified from its original conditions by human activities, such as logging, livestock grazing, roads, gravel mining, fire suppression, golf courses, an airport, and residential, commercial, and industrial developments. In many locations the channel was straightened and enlarged, native vegetation was replaced by turf, and untreated stormwater was directed into the river and its tributaries. The channel has incised and is experiencing accelerated rates of bed and bank erosion. These human influences have reduced the quality of habitats for plant, wildlife, and fish species in the watershed and have increased sediment and nutrient loads discharging into Lake Tahoe from the river, contributing to the lake's declining clarity.

Past physical changes to the lower reach of the Upper Truckee River have affected the river's stability, the condition of the wetlands within its floodplain, and the quality of the water that the river carries into Lake Tahoe. Evidence of historical grazing, dredging, log running, and other actions indicate that the first alterations occurred in the 1800s. With the construction of the Tahoe Keys development beginning in 1959, the river was channelized and relocated west of its original course to its current location, and fill was placed in much of the wetland up to 6 feet above the natural grade. Over time, the river became deeply incised, effectively eliminating a large portion of the Upper Truckee River's floodplain.

These alterations have likely affected water quality by disconnecting the river from its wetlands and floodplains, where sediment and nutrients can be removed from streamflows and runoff. A 2003 study by the National Sedimentation Lab states "The Upper Truckee River is the greatest contributor of suspended and fine-grained sediment in the Lake Tahoe Basin" (Simon et al 2003). Under certain (anaerobic) conditions found in wetlands, nutrients such as nitrogen and phosphorus can be removed by plant uptake and volatilized by denitrification—converted to gaseous or organic forms, fixed into the soil, or simply stored in the soil solution. In addition,

densely vegetated wetlands and floodplains remove sediment and other suspended particles as they allow sediment-laden water to pass through. Thus, the water quality of Lake Tahoe can be protected and improved by restoring the natural functions of wetlands and floodplains in watersheds that drain to the lake.

The preservation and restoration of riparian areas and wetlands of the Upper Truckee Marsh is important for wildlife. In semiarid regions like the Tahoe Basin, the availability of moisture and cool, shaded microclimates gives wetlands and riparian areas an importance for wildlife that is disproportionate to their areal extent. Unfortunately, most wetlands in the Tahoe Basin have been filled and developed, which has adversely affected native vegetation, wildlife, and water quality.

The Upper Truckee Marsh is the largest remaining wetland area in the Tahoe Basin. It is one of five marshes in the basin designated as an Ecologically Sensitive Area; the Marsh's size, uniqueness, and potential for supporting high levels of biodiversity are the factors underlying this designation (Murphy and Knopp 2000). Although still ecologically important, wetland habitats in the study area have been degraded by the channelization and subsequent incision of the Upper Truckee River.

In the study area, there is also the need to provide public access for recreation purposes. The Conservancy acquired the parcels that make up the Upper Truckee Marsh study area to protect the site's existing ecological values and restore the natural processes and functions of the Upper Truckee River, Trout Creek, and associated wetlands while providing public access for recreation purposes. In addition, certain parcels that make up the study area were acquired in a litigation settlement (*People of the State of California vs. Dillingham Development Company and TRPA*, CIV-S-85-0873-EJG [February 25, 1988]). The settlement requires that the Conservancy provide public access to the beach area west of the existing Upper Truckee River mouth.

Thus, the purpose of this project is to restore natural geomorphic processes and ecological functions in this lowest reach of the Upper Truckee River and the surrounding marsh to improve the study area's ecological values and help reduce the river's discharge of nutrients and sediment that diminish Lake Tahoe's clarity, while continuing to provide public access, access to vistas, and environmental education to the public where appropriate. This purpose includes improving habitat values in the study area. Its implementation is an important component of the integrated objectives of the Conservancy, Reclamation, and TRPA to improve environmental quality in the Lake Tahoe region.

1.4.2 PROJECT OBJECTIVES

As discussed in the Notice of Preparation (NOP) developed by the Conservancy to initiate the CEQA process, the project has 10 basic objectives:

- **Objective 1:** Restore natural and self-sustaining river and floodplain processes and functions.
- **Objective 2:** Protect, enhance, and restore naturally functioning habitats.
- **Objective 3:** Restore and enhance fish and wildlife habitat quality.
- **Objective 4:** Improve water quality through enhancement of natural physical and biological processes.
- **Objective 5:** Protect and, where feasible, expand Tahoe yellow cress populations.
- **Objective 6:** Provide public access, access to vistas, and environmental education at the Lower West Side and Cove East Beach consistent with other objectives.
- **Objective 7:** Avoid increasing flood hazards on adjacent private property.
- **Objective 8:** Design with sensitivity to the site's historical and cultural heritage.

- **Objective 9:** Design the wetland/urban interface to help provide habitat value and water quality benefits.
- **Objective 10:** Implement a public health and safety program, including mosquito monitoring and control.

1.5 CEQA, NEPA, AND TRPA CODE REQUIREMENTS FOR RESPONDING TO COMMENTS

The CEQA Guidelines state that written responses to comments received on the Draft EIR must describe the disposition of significant environmental issues. The responses should contain good-faith, reasoned analyses of the environmental issues raised in the comments. In particular, the responses must address the major environmental issues raised when the lead agency's position is at variance with recommendations and objections raised in the comments.

NEPA requires that the Final EIS include and respond to all substantive comments received on the Draft EIS (40 CFR 1503.4). The lead agency's responses may include the need to:

- modify the proposed action or alternatives;
- develop and evaluate new alternatives;
- supplement, improve, or modify the substantive environmental analyses;
- make factual corrections to the text, tables, or figures contained in the Draft EIS; or
- explain why no further response is necessary.

Additionally, the Final EIS must discuss any responsible opposing view that was not adequately discussed in the Draft EIS and must indicate the lead agency's response to the issues raised.

Chapter 5, Section 5.8A of the TRPA Code of Ordinances states that a lead agency of an EIS must consult with and obtain comments from the public and any federal, state, or local agency that has legal jurisdiction or special expertise with respect to any environmental impact involved. Copies of comments of the federal, state, and local agencies that are authorized to develop and enforce environmental standards must be made available to the public and must accompany the project through the review processes.

This Final EIR/EIS/EIS has been prepared to respond to comments received from agencies, organizations, and members of the public on the 2013 Draft EIR/EIS/EIS and to present corrections, revisions, and other clarifications and amplifications to that document.

1.6 REQUIREMENTS FOR DOCUMENT CERTIFICATION AND FUTURE STEPS IN PROJECT APPROVAL

The 2013 Draft EIR/EIS/EIS and this Final EIR/EIS/EIS will be used to support the Conservancy's and TRPA's decisions on whether to approve the project and Reclamation's decision to issue a ROD.

This Final EIR/EIS/EIS will also be used by CEQA responsible agencies, such as the Lahontan Regional Water Quality Control Board and California Department of Fish and Wildlife, to ensure that they have met the requirements of CEQA before deciding whether to issue discretionary permits and approvals for portions of the project over which they have authority. This document also may be used by other state, regional, and local agencies that have an interest in resources that could be affected by the project or would issue permits and/or other regulatory approvals. This Final EIR/EIS/EIS will be used by the U.S. Army Corps of Engineers to make decisions on whether to issue permits pursuant to Section 404 of the CWA.

This document is available for review by the public during normal business hours at the following locations:

State of California
California Tahoe Conservancy
1061 Third Street
South Lake Tahoe, CA 96150

TRPA front desk
128 Market Street
Stateline, NV 89449

Reclamation
Mid-Pacific Regional Library
2800 Cottage Way
Sacramento, CA 95825

South Lake Tahoe Library front desk
1000 Rufus Allen Boulevard
South Lake Tahoe, CA 96150

This document is posted electronically at:

http://tahoe.ca.gov/upper-truckee-marsh-69.aspx
www.trpa.org
http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=2937

CDs are also available upon request from the Conservancy. Please submit requests via electronic mail to Scott.Carroll@tahoe.ca.gov.

Please refer to notices of the release of this Final EIR/EIS/EIS for the specific dates of public meetings. Notices will be posted electronically at:

http://tahoe.ca.gov/upper-truckee-marsh-69.aspx
www.trpa.org
http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=2937

The Conservancy Board will decide whether to certify the EIR/EIS/EIS under CEQA and then whether to approve the Preferred Alternative as recommended by staff, or a variation of it within the range of alternatives addressed in the environmental document, as the project action. The Conservancy Board is tentatively scheduled for December 18, 2015 to vote on certification of the EIR and project approval.

Reclamation will complete a ROD on the alternatives at least 30 days after the U.S. Environmental Protection Agency publishes its weekly list of EISs, and following certification by the Conservancy. The ROD will state the federal action to be implemented and will discuss all factors leading to the decision.

The TRPA Governing Board is tentatively scheduled for February 24, 2015 to consider certification of the EIR/EIS/EIS and whether to approve the Preferred Alternative, or a variation of it within the range of alternatives addressed in the environmental document, as the project action.

The dates, times, and locations of all public meetings will be posted at the websites listed above.

Permits and approvals issued by responsible agencies will be considered after further design development of the selected alternative. They will be scheduled according to the procedures of the approving agencies.

1.7 ORGANIZATION AND FORMAT OF THE FINAL EIR/EIS/EIS

This Final EIR/EIS/EIS is organized into the following chapters so that the reader can easily obtain information about the project and its specific environmental issues:

- **Chapter 1, "Introduction and Statement of Purpose and Need,"** explains the CEQA, NEPA, and TRPA processes; lists the lead, trustee, responsible, and cooperating agencies that may have discretionary authority or other jurisdiction related to the project; specifies the underlying project purpose, need, and objectives to which the lead agencies are responding in considering the alternatives; outlines the organization of the document; provides information on public distribution and agency approval processes; and identifies standard terminology and abbreviations used in the Final EIR/EIS/EIS.

- **Chapter 2, "Project Description,"** presents a summary of the five alternatives considered in the Final EIR/EIS/EIS, the selection process for recommending the Preferred Alternative, and a detailed description of the Preferred Alternative.

- **Chapter 3, "Master Responses,"** presents responses to significant environmental issues raised in multiple comments on the Draft EIR/EIS/EIS. These have been termed "master responses." They are organized by topic to provide a more comprehensive response than may be possible in responding to individual comments so that reviewers can readily locate all relevant information pertaining to an issue of concern.

- **Chapter 4, "Comments and Individual Responses,"** contains a list of all agencies and persons who submitted comments on the 2013 Draft EIR/EIS/EIS during the respective public review periods, copies of the comment letters submitted, cross references to relevant master responses, and individual responses to the comments that are not addressed in master responses or need additional detail.

- **Chapter 5, "Revisions to the Draft EIR/EIS/EIS**," presents corrections and other revisions to the text of the 2013 Draft EIR/EIS/EIS based on issues raised by comments or ongoing planning refinements. Changes in the text are signified by ~~strikeouts~~ where text is removed and by <u>underline</u> where text is added.

- **Chapter 6, "List of Preparers**," lists the individuals who assisted in the preparation of this Final EIR/EIS/EIS.

- **Chapter 7, "References,**" identifies the documents used to support the comment responses.

- **Chapter 8, "Final EIR/EIS/EIS Distribution List,"** provides a list of the various elected officials, government departments and agencies, organizations, and individuals who have been sent the Final EIR/EIS/EIS or notification of its availability.

The 2013 Draft EIR/EIS/EIS consisted of three volumes. Volume I contained the EIR/EIS/EIS introduction, statement of purpose and need, alternatives descriptions, and Sections 3.1 through 3.9 of the affected environment and environmental consequences. Volume II contained Sections 3.10 through 3.18 of the affected environment and environmental consequences, as well as the other required sections; the compliance, consultation, and coordination section; the list of preparers and references cited; and index. Finally, Volume III contained the technical appendices. This document is Volume IV of the EIR/EIS/EIS. Together, the four volumes constitute the Final EIR/EIS/EIS.

1.8 ACRONYMS AND OTHER ABBREVIATIONS

Table 1-1 defines the abbreviations used in this Final EIR/EIS/EIS.

Table 1-1 Acronyms and Other Abbreviations	
1D	One-dimensional
2D	two-dimensional
ADA	Americans with Disabilities Act
Basin Plan	Water Quality Control Plan for the Lahontan Region
BMP	best management practice
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
Concept Plan Report	Upper Truckee River and Wetland Restoration Project Final Concept Plan Report
Conservancy	California Tahoe Conservancy
CRHR	California Register of Historical Resources
CSLC	California State Lands Commission
CSLT	City of South Lake Tahoe
CWA	Clean Water Act
DEM	digital elevation model
DPR	Department of Parks and Recreation
Draft EIR/EIS/EIS	draft environmental impact report/environmental impact statement/environmental impact statement
EDCAQMD	El Dorado County Air Quality Management District
EDCVCD	El Dorado County Vector Control District
EIP	Environmental Improvement Program
EIR	environmental impact report
EIR/EIS/EIS	environmental impact report/environmental impact statement/environmental impact statement
EIS	environmental impact statement
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
Final EIR/EIS/EIS	Final environmental impact report/environmental impact statement/environmental impact statement
GIS	geographic information system
HASP	health and safety plan
LiDAR	Light Detection and Ranging
LO	Lack of Objections
LSAA	Lake and Streambed Alteration Agreement
LWS	Lower West Side
LWS Project	Lower West Side Wetland Restoration Project

Table 1-1 Acronyms and Other Abbreviations	
MLD	Most Likely Descendant
NAHC	Native American Heritage Commission
NAVD	North American Vertical Datum
NEPA	National Environmental Policy Act of 1969
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NOP	Notice of Preparation
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historical Places
PL	Public Law
PM_{10}	particulate matter of 2.5 to 10 micrometers (e.g. coarse dust particles)
POP	Public Outreach Plan
PRC	California Public Resources Code
Reclamation	U.S. Department of the Interior Bureau of Reclamation
ROD	record of decision
ROG	reactive organic gas
RS	River Station
RWQCB	Regional Water Quality Control Board
SEZ	Stream Environment Zone
SMAQMD	Sacramento Metropolitan Air Quality Management District
SPP	Spill Prevention Plan
SRA	State Recreation Area
SWPPPs	Storm Water Pollution Prevention Plans
TKPOA	Tahoe Keys Property Owners Association
TRPA	Tahoe Regional Planning Agency
TYC	Tahoe yellow cress
U.S. 50	U.S. Highway 50
USACE	U.S. Army Corps of Engineers
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
WSEL	water surface elevation

This page intentionally left blank.

2 PROJECT DESCRIPTION

This chapter describes the approach to selection of a Preferred Alternative, including a summary of the alternatives development process. A refined project description for the Preferred Alternative is also presented. The Preferred Alternative was selected based on screening each alternative's ratings related to meeting the goals and objectives of the project, purpose and need, project feasibility, and comments from the public and agencies on the draft environmental impact report/environmental impact statement/environmental impact statement (Draft EIR/EIS/EIS).

2.1 SELECTING A PREFERRED ALTERNATIVE

2.1.1 CEQA, NEPA, AND TRPA REQUIREMENTS

Alternatives evaluated in the Draft EIR/EIS/EIS were based on a combination of requirements from California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), and Tahoe Regional Planning Agency (TRPA) provisions. In accordance with Section 15126.6 of the CEQA Guidelines, the Draft EIR/EIS/EIS included an analysis of alternatives that could feasibly attain most of the basic project objectives, a review of a no-project alternative, and a discussion of alternatives considered but determined to be infeasible. Section 15126.6 states that the alternatives analysis must:

- describe a range of reasonable alternatives for the project that could feasibly attain most of the basic objectives of the project but would substantially lessen or avoid any of the significant effects of the project;
- focus on alternatives capable of avoiding or substantially lessening any of the significant environmental impacts of the project, even if they may be more costly or could otherwise impede some of the project's objectives; and
- evaluate the comparative merits of the alternatives.

NEPA requires comparable treatment of the alternatives so that their comparative merits may be evaluated (40 Code of Federal Regulations [CFR] 1502.14[b]).

The NEPA regulations (40 CFR 15012.14) require that an environmental analysis include:

- an objective evaluation of reasonable alternatives;
- identification of the alternatives considered but eliminated from detailed study, along with a brief discussion of the reasons why these alternatives were eliminated;
- information that would allow reviewers to evaluate the comparative merits of the proposed action and alternatives;
- consideration of the no-action alternative;
- identification of the agency's preferred alternative, if any; and
- identification of appropriate mitigation measures not already included in the proposed action or alternatives.

Unlike CEQA, which permits the evaluation of alternatives to occur in less detail than is provided for a proposed project, NEPA requires the analysis of all alternatives considered in the analysis to occur at a comparable level of

detail. NEPA regulations (40 CFR 1502.14) require agencies to rigorously explore and objectively evaluate all reasonable alternatives and to devote substantial treatment to each alternative considered.

Section 3.7 of the TRPA Code of Ordinances describes EIS requirements, and specifically the need to study, develop, and describe appropriate alternatives to address unresolved conflicts in uses of available resources. Similar to NEPA, TRPA typically evaluates alternatives analyzed at a comparable level of detail; however, this is not a requirement.

The Draft EIR/EIS/EIS provided comparable detail in the analysis of a reasonable range of alternatives, including a no-action alternative. These alternatives were identified after other alternatives were considered but eliminated from detailed study in the manner directed by NEPA andTRPA. After input from responsible and interested agencies and public comments provided on the Draft EIR/EIS/EIS the Conservancy implemented a two-step process for recommending alternative components to be brought forward into the Preferred Alternative. Step one involved developing criteria and a process for selecting a Preferred Alternative, while step two implemented the process to establish the Preferred Alternative.

ALTERNATIVES DEVELOPMENT PROCESS FOR THE DRAFT EIR/EIS/EIS

The primary purpose of the project is to restore natural geomorphic processes and ecological functions to improve the area's ecological values and help reduce the river's discharge of nutrients and sediment that diminish Lake Tahoe's clarity, while still providing safe access to vistas and environmental education to the public.

The project purpose and need and project goals and objectives, as described in Chapter 1, "Introduction and Statement of Purpose and Need," were used to develop the alternatives evaluated in the Draft EIR/EIS/EIS. None of the alternatives evaluated in the Draft EIR/EIS/EIS were designated as preferred. Rather, guiding principles were developed requiring that each alternative be designed as a "full-spectrum" alternative that addressed, to varying degrees, all project objectives and design directives; be modular in nature, such that recreation access and infrastructure components could be interchangeable with habitat restoration and protection measures proposed; and embody a diverse range of feasible and implementable concepts, consistent with constraints identified and mapped early in the planning process (Conservancy and DGS 2003).

Each of the alternatives also needed to be developed within the context of existing land use regulations and stated California Tahoe Conservancy (Conservancy) purposes for acquiring properties. Long-term maintenance costs were also considered in the development process.

Four preliminary conceptual alternatives and a "No Project/No Action" alternative were developed and refined by the Conservancy, the U.S. Bureau of Reclamation, TRPA, and a team of technical consultants after review of scoping comments received on the Notice of Preparation and Notice of Intent, as well as comments provided at public information meetings conducted to obtain additional public input. Alternatives passing the screening review were carried forward into the Draft EIR/EIS/EIS for detailed evaluation of potential environmental impacts. The overall plan of each alternative evaluated in the Draft EIR/EIS/EIS was conceptual for analysis purposes, and final design of the Preferred Alternative may reflect modifications to project features made as a result of the normal design refinement process or to satisfy permitting agencies or other parties involved in the final decision-making process. These modifications may not substantially increase the intensity or severity of an impact or create a new significant impact without further environmental review.

The full range of reasonable alternatives presented for public review during circulation of the Draft EIR/EIS/EIS were as follows:

- **Alternative 1—**Channel Aggradation and Narrowing (Maximum Recreation Infrastructure)
- **Alternative 2—**New Channel–West Meadow (Minimum Recreation Infrastructure)
- **Alternative 3—**Middle Marsh Corridor (Moderate Recreation Infrastructure)
- **Alternative 4—**Inset Floodplain (Moderate Recreation Infrastructure)
- **Alternative 5—**No Project/No Action

During refinement, several facilities were removed from the alternatives, in particular a full-service visitor center and restrooms. This preliminary assessment is presented in Section 2.2.2, "Alternatives Considered but Eliminated from Detailed Evaluation," of the Draft EIR/EIS/EIS. Alternative locations were also considered; however, they would not fulfill the purpose and primary objectives of the project. Off-site actions upstream along the Upper Truckee River or elsewhere in the watershed could reduce the river's discharge of nutrients and sediment, but would not substantially improve ecological values of the study area.

The Draft EIR/EIS/EIS presented overview maps and describes in detail the river restoration, terrestrial habitat restoration and enhancement, and public access and recreation features of each alternative. Additional information regarding the alternatives is provided in the Draft EIR/EIS/EIS appendices: Appendix C, "Schematic Plans," provides additional detail about the elements of each project alternative; Appendix D, "Construction Workers and Equipment for Action Alternatives," lists the construction workers and equipment associated with specific construction activities; and Appendix E, "Alternative Cost Estimates," provides cost estimates of the elements and the total cost of Alternatives 1–4 (which were prepared in 2006 for the *Upper Truckee River and Wetland Restoration Project Final Concept Plan Report* [Concept Plan Report]).

Alternative 1. Channel Aggradation and Narrowing (Maximum Recreation Infrastructure)

To restore the river channel and its connection to the floodplain, Alternative 1 would increase channel length and decrease channel capacity. A key element of this restoration would be the use of engineering elements (primarily structures in the channel) to cause sediment deposition that would raise the channel bed and decrease channel capacity and would slightly reduce the capacity of the channel mouth at Lake Tahoe.

Alternative 1 also would restore a naturally functioning lagoon in the vicinity of the existing Sailing Lagoon, lagoon and wet-meadow conditions behind the east end of Barton Beach, floodplain functions at the Tahoe Keys Property Owners Association (TKPOA) Corporation Yard (contingent on TKPOA consent), and sand ridges ("dunes") at Cove East Beach. Alternative 1 would enhance forest habitat and an area of "core habitat" in the center of the study area that contains sensitive marsh by removing or relocating volunteer (i.e., user-created) trails. In addition, at the existing location where boaters enter and exit the Upper Truckee River, adjacent to East Venice Drive, the river bank would be stabilized with best management practices (BMPs) to avoid erosion and other resource damage.

Alternative 1 would provide a potential "maximum" level of recreation infrastructure that would include parking on the west side of the study area adjacent to the Tahoe Keys Marina, a connected system of bicycle paths, boardwalks, observation areas, two kiosks, and signage. Bicycle paths would be Class I/Shared-Use Paths (as described in TRPA and TMPO 2010). Bridges over Trout Creek and the Upper Truckee River (and a boardwalk) would connect the proposed bicycle paths. Bicycle paths would connect to existing regional trails near the study area.

Alternative 2. New Channel–West Meadow (Minimum Recreation Infrastructure)

To restore the river channel and its connection to the floodplain, Alternative 2 would directly raise the streambed elevation, increase the channel length, and decrease channel capacity. A key element of this restoration would be the excavation of a new river channel that would have less capacity than the existing channel. The existing river mouth would be replaced with a new smaller river mouth, similar in size to the historical river mouth before dredging.

The river channel and floodplain restoration elements of Alternative 2 would require modification and/or relocation of two existing stormwater discharge locations. Alternative 2 also includes all of the other restoration and enhancement elements of Alternative 1. In addition, at the existing location where boaters enter and exit the Upper Truckee River, adjacent to East Venice Drive, the river bank would be stabilized with BMPs to avoid erosion and other resource damage. To protect natural resources, a boardwalk connecting the river to East Venice Drive would be constructed.

Alternative 2 would provide a “minimum” level of recreation infrastructure that would include a modified Americans with Disabilities Act (ADA)–accessible pedestrian trail to Cove East Beach, five viewpoints, a fishing platform, and signage. Except for four viewpoints along the eastern perimeter of the study area (adjacent to the Al Tahoe neighborhood), this infrastructure is located from East Venice Drive to Cove East Beach.

Alternative 3: Middle Marsh Corridor (Moderate Recreation Infrastructure)

To restore the river channel and its connection to the floodplain, Alternative 3 would promote the development through natural processes of a new main channel and/or distributary channels in the central portion of the study area. A “pilot” channel, similar to the channel segments constructed under Alternatives 1 and 2, would be constructed from the existing river channel to historical channels in the center of the study area, but a channel would not be constructed in the central or northern portions of the study area. Rather, natural processes would be allowed to dictate the flow path(s), bed and bank elevations, and capacities of the channel(s) through the Marsh. The existing river mouth would be retained, but its capacity would be reduced and minimum elevation controlled. In addition, by boring two culverts under U.S. Highway 50 (U.S. 50), an area of isolated floodplain would be reactivated. Alternative 3 has no stabilizations or infrastructure proposed in the vicinity of East Venice Drive. Bank stabilization is not proposed at East Venice Drive because the concept of Alternative 3 does not dictate the location of the channel(s), and it is therefore unclear where the primary channel will be located and whether and to what extent it will require stabilization. Alternative 3 would allow natural processes to determine flow paths through the Marsh. The river channel and floodplain restoration elements of Alternative 3 would require modification and/or relocation of two existing stormwater discharge locations. Also, like Alternatives 1 and 2, Alternative 3 would restore a naturally functioning lagoon in the vicinity of the Sailing Lagoon and floodplain functions at the TKPOA Corporation Yard, and would enhance areas of “core habitat” and forest. However, Alternative 3 would not restore lagoon and wet-meadow conditions behind the east end of Barton Beach (by removal of existing fill) or dunes at Cove East Beach.

Alternative 3 would provide a “moderate” level of recreation infrastructure that would include three pedestrian trails, a bicycle path, a kiosk, one observation area, six viewpoints, a fishing platform, and signage at multiple locations. As under Alternative 2, the modified pedestrian trail to Cove East Beach would be ADA-accessible, as would the fishing platform at the restored lagoon. Alternative 3 also would include a bicycle path and a pedestrian trail near the Highland Woods neighborhood, connected to Mackinaw Road, as well as a pedestrian trail adjacent to the Al Tahoe neighborhood from Capistrano Avenue to East Barton Beach, two segments of which would be boardwalks.

Alternative 4. Inset Floodplain (Moderate Recreation Infrastructure)

To restore the river channel and its connection to the floodplain, Alternative 4 would lower bank heights. This alternative would involve excavation of an inset floodplain along much of the river channel and localized cutting and filling to create meanders in the existing straightened reach. The existing river mouth would be retained and its capacity would not be reduced. Although Alternative 4 would include the enhancement of core and forest habitats, it would not include the restoration of floodplain functions at the TKPOA Corporation Yard, a naturally functioning lagoon in the vicinity of the existing Sailing Lagoon, or dunes at Cove East Beach. In addition, at the existing location where boaters enter and exit the Upper Truckee River, adjacent to East Venice Drive, the river bank would be stabilized with BMPs to avoid erosion and other resource damage.

Like Alternative 3, Alternative 4 would provide a “moderate” level of recreation infrastructure that would include two pedestrian trails, a bicycle path, a kiosk, two observation areas, five viewpoints, and signage at multiple locations. The bicycle path would be adjacent to the Highland Woods neighborhood and connected to Mackinaw Road. The pedestrian trails would be near the Tahoe Keys from East Venice Drive to Cove East Beach, in part replacing the existing pedestrian trail, and adjacent to the Al Tahoe neighborhood from Capistrano Avenue to San Francisco Avenue, one segment of which would be a boardwalk.

Alternative 5. No Project/No Action

Alternative 5 would not provide any actions to restore the river channel and its connection to the floodplain in the study area. This alternative would allow but not facilitate the long-term, passive recovery of the river system via natural processes. The existing river mouth location, size, and bed elevation would continue to adjust to lake levels, streamflows, and sediment loads. The Upper Truckee River–lagoon connection would not be restored, leaving the direct open-water connection between the Tahoe Keys Marina channel, the Sailing Lagoon, and Lake Tahoe unchanged. The previously leveled area between Cove East Beach and the Sailing Lagoon would not be modified. Alternative 5 would not protect an extensive area of core habitat. However, the Conservancy has been implementing localized decommissioning of some trails, and similar actions would likely continue to be implemented.

Alternative 5 would not include any direct steps to construct recreation infrastructure elements that would alter public access. However, this alternative would likely involve maintaining existing infrastructure and might result in the construction of some additional, smaller elements (e.g., signage).

PREFERRED ALTERNATIVE DEVELOPMENT PROCESS

The Conservancy implemented a two-step process for recommending alternative elements to be brought forward into the Preferred Alternative. Step one involved developing criteria and a process for selecting a Preferred Alternative, while step two implemented the process to establish the Preferred Alternative. Each step was peer reviewed by a Science Review Panel and Technical Advisory Group. The Science Review Panel's members possess expertise in a range of disciplines germane to the project. The Technical Advisory Group comprises representatives of partner agencies, funding entities, and regulators that have specific Tahoe Basin experience and responsibilities.

The following three criteria were used to select the Preferred Alternative:

- **C1: Benefits**—this criterion addresses the overall performance of the restoration and recreational elements relative to the project objectives and purpose and need. The evaluation relies on the Concept Plan Report (Conservancy and DGS 2006) and the Recreation Opportunity Spectrum. The Concept Plan Report includes an analysis of the four action alternatives and the no-action alternative based on their ability to fulfill the project objectives. The Conservancy based its restoration element rating on the findings of the Concept Plan Report, and on the ability of the restoration element to replicate geomorphically appropriate conditions and functions. The Conservancy uses the Recreation Opportunity Spectrum to characterize recreation opportunities in terms of a location's setting, activities, and resulting experience. Distinguishing these opportunities helps recreation managers to create and maintain appropriate recreation experiences.

- **C2: Responsiveness to Public Comments—**this criterion analyzes public preferences and concerns received during the Draft EIR/EIS/EIS public review period regarding specific alternative elements.

- **C3: Overall Feasibility**—this criterion consists of four subcriteria: potential impacts, permits/agreements/acquisitions, funding, and sustainability. The Draft EIR/EIS/EIS analyzed the impacts of the alternatives and, along with the Concept Plan Report, provided the foundation for several subcriteria under C3.

  The permits/agreements/acquisitions subcriterion considers the two primary acquisitions associated with the study area. The Conservancy acquired the western portion from the Tahoe Keys Subdivision developer via a litigation settlement agreement in 1988, which stipulates that public access be maintained to the beach along Lake Tahoe, consistent with natural resource values. The Conservancy Board approved the Barton Meadow acquisition (the eastern portion of the study area) in 2000 for the protection of habitat and water quality, and to restore the property's natural resource values.

The Conservancy rated the alternatives under the funding subcriterion based on their cost/benefit and phasing potential. Because the alternatives do not differ from a phasing perspective, the cost/benefit was the driving consideration for the rating under this subcriterion.

The Conservancy used a qualitative system to weigh the pros and cons of the alternatives to develop a Preferred Alternative. Numeric ratings were not applied because consistent data are not available to quantify benefits and feasibility. The five alternatives were rated using the rating scale shown in Table 2-1.

Table 2-1
Scale Used to Rate the Alternatives Evaluated in the Draft EIR/EIS/EIS

Rating	Color Code	Description
Preferred	**P**	Several or very essential pros; few or no cons.
Acceptable	**A**	Some substantial pros; may have some or minor cons.
Neutral	**N**	No obvious cons or pros, or they balance each other out.
Undesirable	**U**	Few to several cons; may have some substantial pros.
Objectionable	**O**	Very serious or unacceptable cons; few or very limited pros.

Source: Conservancy 2014

Consistent with the analysis approach presented in the Draft EIR/EIS/EIS, the restoration and recreation elements were evaluated independently. Furthermore, the recreation elements were separated geographically because of the unique physical characteristics and legal constraints that differentiate the east and west sides of the study area (Exhibit 2-1). The west side of the study area is defined as the area west of the centerline of the Upper Truckee River, located between the end of East Venice Drive and Lake Tahoe and adjacent to the Lower West Side Project. The east side of the study area includes the area east of the centerline of the Upper Truckee River near Lake Tahoe, areas adjacent to the Al Tahoe and Highland Woods subdivisions, and areas adjacent to the TKPOA Corporation Yard. The results of the evaluation of each element ranked are summarized below in Table 2-2.

PREFERRED ALTERNATIVE: MIDDLE MARSH CORRIDOR (EXISTING EASTSIDE RECREATION INFRASTRUCTURE AND MODERATE WESTSIDE RECREATION)

The Preferred Alternative includes the most beneficial and cost-effective elements of the five alternatives evaluated in the Draft EIR/EIS/EIS and Concept Plan Report. 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 for the Restoration Element:* Alternative 3 would 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. This concept proposes the most geomorphically appropriate channel configuration allowing the pilot channel to strategically connect 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.

- *Alternative 5 for the Recreation Element, East Side of the Upper Truckee Marsh:* Alternative 5 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: Alternative 3 would upgrade the recreation infrastructure on the west side of the study area through construction of 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 restoration of wet-meadow conditions behind the east end of Barton Beach, and the restoration of sand ridges ("dunes") at Cove East Beach that were graded and leveled as part of the Tahoe Keys development. The sand ridge restoration would occur in conjunction with removal of fill in the southern portion of Cove East Beach and the modification and reconnection of the Sailing Lagoon to the Upper Truckee River.

A more detailed description of both the restoration and recreation elements of the Preferred Alternative is presented below. A summary of the restoration and recreation characteristics of each alternative is presented in Table 2-3. For purposes of comparison, Table 2-3 also presents the Preferred Alternative described below.

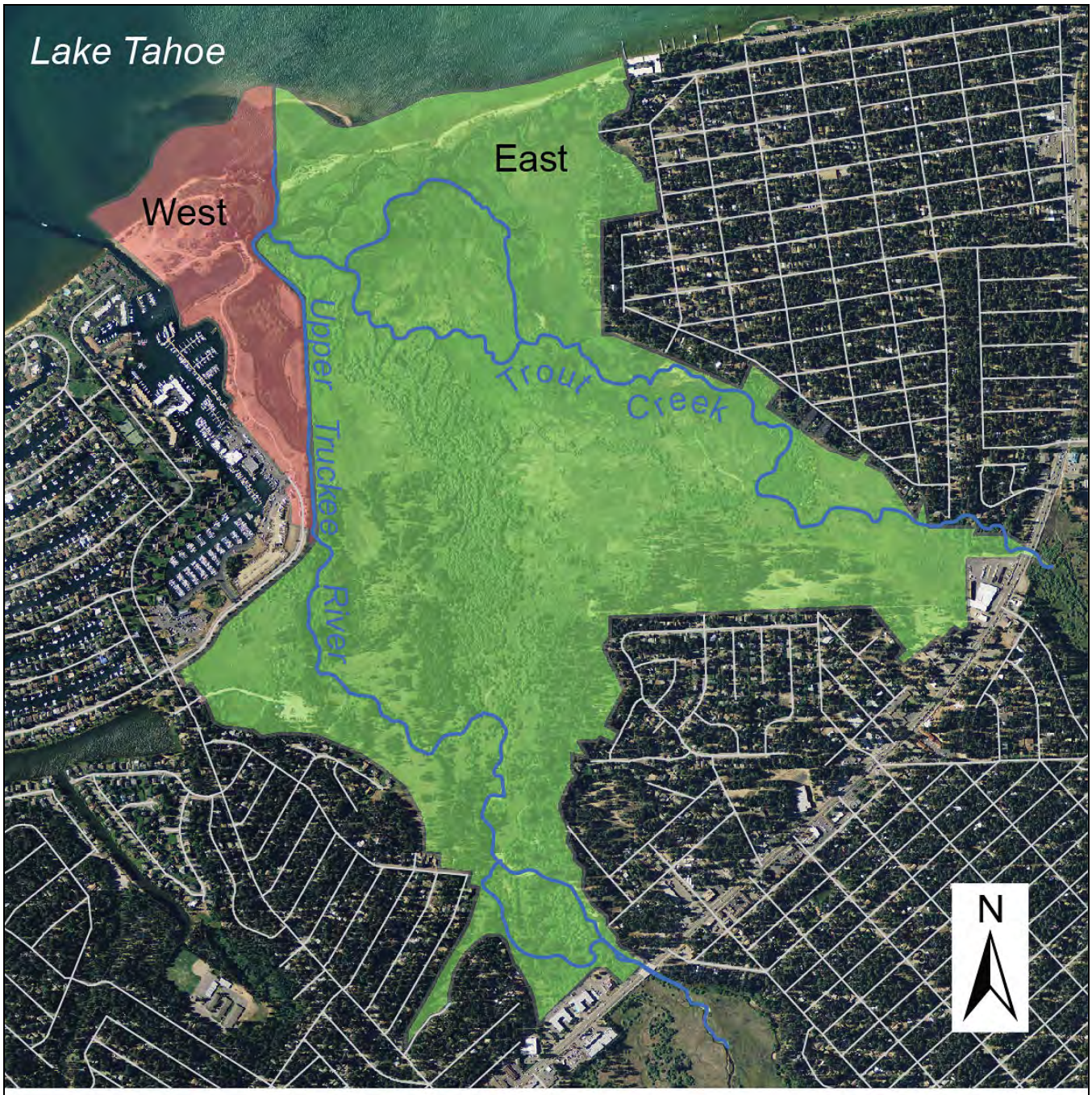
2.1.2 RIVER RESTORATION ELEMENTS OF THE PREFERRED ALTERNATIVE

The primary objective of the project is to restore natural processes and functions by decreasing channel capacity and reestablishing the channel's connection to an active floodplain with more frequent overbanking of river flow into the adjacent Marsh and wet meadow. The active floodplain is defined as the area inundated by streamflow events that occur at least once every couple of years (i.e., 2- to 5-year storm events). For the Upper Truckee River in the study area, 2- to 5-year storm events correspond to a river flow of 760–1,660 cubic feet per second (cfs).

The Upper Truckee River downstream of the U.S. 50 bridge is incised and overly wide as a result of direct and indirect human disturbances. Consequently, the channel can convey, on average, at least 800–1,000 cfs without streamflows overbanking into the meadow. This channel capacity is more than double the geomorphic channel-forming flow, approximately 450 cfs, and most of the former (i.e., predisturbance) floodplain has become an infrequently inundated terrace. In some portions of the study area, existing channel capacity is more than 1,200 cfs, and it exceeds 2,000 cfs in the reach located the farthest upstream. Reestablishing an active floodplain and reducing channel capacity would increase the frequency and duration of overbank flows, and thus, the retention of suspended sediment on the meadow. These restored river processes would in turn enhance plant communities, aquatic and terrestrial habitat, groundwater recharge, water quality, and the ecological and aesthetic values of the study area. The geomorphic function of the river channel and its connection to the surrounding topography would be improved by both active and passive restoration means. Passive restoration downstream of a constructed pilot channel in the main marsh would replace the existing single-thread and straightened channel with a network of small channels of varied capacity. No construction would occur within the main-meadow channel sections. Therefore, the flow paths, bed and bank elevations, and channel capacities would be dictated by natural processes.

The Preferred Alternative would include the following restoration features:

- stabilization of the banks downstream of the U.S. 50 bridge to reduce sediment inputs;
- active channel restoration to raise the streambed elevation, increase the channel length, and decrease channel capacity by constructing a geomorphically sized pilot channel (about 38 feet wide and 4 feet deep) extending about 1,100 feet downstream of River Station (RS) 32+00 to reconnect with remnant channels in the Marsh;
- modification of the previously dredged river mouth to limit low-lake-level effects on surface flows;
- lowering of portions of the terrace to reestablish an active floodplain connection with the river;
- removal of existing (and reserved) fill from the floodplain to increase the area providing lagoon and meadow functions;



G 00110066.04 082

Exhibit 2-1 **Eastern and Western Recreation Access Areas**

Table 2-2
Summary of Benefits, Public Comment, and Feasibility Ratings for Each Alternative

Criteria	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (No Project/No Action)	Preferred Alternative
Restoration Element Rest						
C1—Benefits						
C2—Public Comment						
C3—Feasibility						
Eastside Access Element						
Benefits						
Public Comment						
Feasibility						
Westside Access Element						
Benefits						
Public Comment						
Feasibility						

Note: Color coded according to ratings shown in Table 2-1 above.
Source: Conservancy 2014, adapted by AECOM in 2015

Table 2-3
Elements Included in the Action Alternatives[1]

Element	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Preferred Alternative
Restoration and Enhancement Elements					
Stabilization of Eroding Banks Downstream of U.S. 50 Bridge	✓	✓	✓	✓	✓
River and Floodplain Restoration[2]	✓	✓	✓	✓	✓
River Mouth Size Reduction	✓	✓	✓		✓
Removal of Existing Fill from Floodplain	✓	✓	✓		✓
Reactivation of Floodplain Terrace			✓		✓
Modification of Existing Stormwater Discharge Locations		✓	✓		✓
Reestablishment of River Overflow Lagoon	✓	✓	✓		✓
Removal of Existing Fill from Behind the East End of Barton Beach	✓	✓			✓
Beach-Dune Restoration	✓	✓			✓
Forest Enhancement	✓	✓	✓	✓	✓
Core Habitat Enhancement	✓	✓	✓	✓	✓
East Venice Drive Bank Stabilization	✓	✓		✓	

Element	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Preferred Alternative
Recreation and Public Access Elements					
Bicycle Path(s)	✓		✓	✓	
Pedestrian Trail(s)		✓	✓	✓	✓
Observation Areas	✓		✓	✓	✓
Bridges	✓				
Kiosk(s)	✓		✓	✓	✓
Parking Lot	✓				
Fishing Platform	✓	✓	✓		✓
Boardwalk(s)	✓		✓	✓	
Viewpoints and Signage	✓	✓	✓	✓	✓

Notes:

U.S. 50 = U.S. Highway 50

[1] No-Project/No-Action Alternative does not include any of these elements.

[2] River and floodplain restoration includes river channel restoration, secondary channel reactivation, floodplain lowering, and fill of abandoned channel segments.

Source: Data compiled by Cardno in 2015

- fill and partial fill of abandoned channel segments to increase the area providing floodplain overflow and meadow functions;
- modification of existing stormwater discharge locations and features to allow for river and floodplain restoration elements; and
- reestablishment of a river-connected lagoon.
- restoration of sand ridges ("dunes") at Cove East Beach that were graded and leveled as part of the Tahoe Keys development.
- forest and core habitat enhancement to improve onsite resource conditions

STABILIZATION OF ERODING BANKS DOWNSTREAM OF THE U.S. 50 BRIDGE

Flow constriction and redirection under the U.S. 50 bridge create large hydraulic stresses on the steep and high streambanks downstream. This has accelerated the rates of bank erosion and fine-sediment delivery to the Upper Truckee River and ultimately to Lake Tahoe. With the willing cooperation of relevant private landowners, the Preferred Alternative would involve constructing permanent bank protection on the east bank downstream of the bridge, using geotechnical methods, bioengineering methods, or both.

Under the Preferred Alternative, the streambanks immediately downstream of U.S. 50 (from RS 0+00 to RS 13+00) would be modified. The modifications would include keyed-in boulders at the base (toe) of the bank and bioengineered revegetation above the boulders. Protection would be installed primarily on the high, actively eroding east bank, but it would also include active existing and proposed cut bank sites on the west bank. Additional protection against bank erosion would be achieved by reactivating the secondary channel from RS 5+25 to RS 11+00 and lowering the floodplain on the west bank from RS 0+00 to RS 11+00; both measures would decrease hydraulic stress on the main channel banks during high streamflows.

RIVER CHANNEL RESTORATION

The straightened Upper Truckee River channel not only has excess capacity resulting from historic dredging, but also has a uniform channel-bed morphology that is not diverse enough to support high-quality aquatic habitat. Under the Preferred Alternative, the existing straightened reach would be replaced by a constructed pilot channel to redirect most river flow into the center of the Marsh, allowing natural processes to determine low-flow paths along the meadow surface (which has appropriate, historical floodplain swales) and promote reactivation and/or formation of a new primary channel or multiple-thread channels.

The geomorphic function of the river channel and its connection to the surrounding topography would be improved by both active and passive restoration means. The active measures would raise the streambed's elevation, increase channel length, and decrease channel capacity through construction of a geomorphically sized pilot channel, approximately 1,100 feet long, 38 feet wide, and 4 feet deep, that would be connected to the existing main channel at RS 32+00. The passive restoration downstream of the pilot channel in the center of the Marsh would replace about 7,100 feet of existing single-thread channel with a network of numerous channels of varied capacity. No earthwork to reconstruct channels would occur within the main-meadow channel sections. Therefore, the flow paths, bed and bank elevations, and channel capacities would be dictated by natural processes.

The proposed main-channel alignment and profile for the Preferred Alternative would have a relatively short constructed reach. These features include two vertical grade controls to stabilize the bed elevation (at RS 32+00 and RS 99+00) and two lateral grade controls to maintain the proposed streambank position and channel confluences (at RS 32+00 and RS 95+50). In general, the control structures would be constructed of a combination of partially buried rock material and logs, with bioengineered revegetation above the future waterline. The grade control at RS 95+50 would set the bed elevation for the reconnection between the river and the lagoon, and the grade control at RS 99+00 would set the bed elevation for the river mouth. Both of these would be designed to have constructed elements that simulate the appearance and replace the function of naturally resistant subsurface geologic layers (e.g., consolidated lake sediments) that occurred in the study area, but were disturbed by historic dredging.

The Preferred Alternative includes channel stabilization on the lower section of Trout Creek. Redirected flows from the Upper Truckee River would pass through the remnant channel system in the middle of the Marsh and increase streamflow conveyed through the lowest reach of Trout Creek. This would create the potential for future channel adjustments such as bed or bank erosion within a section that historically experienced bed erosion as a response to dredging of the main channel. Therefore, the Preferred Alternative includes installation of vertical grade control(s) and streambank stabilization measures along up to 2,600 feet of lower Trout Creek (from RS 66+00 to RS 95+50). The vertical grade controls would be of an adequate number and design to maintain the existing average slope and bed elevation of the channel and remain stable under the 100-year peak flows, assuming the combined peaks of Trout Creek and the Upper Truckee River. The streambank stabilization measures would be designed to remain stable under the 10-year peak flows, assuming the combined peaks of Trout Creek and the Upper Truckee River. Their design would anticipate and address the potential effects of sheet and concentrated overflow returning to the channel off the reactivated floodplain. The proposed treatment types would prioritize the use of bioengineered, living vegetative treatments above the normal water line, but could require the use of buried rock under the channel bed for grade control features.

For floodplain areas with remnant channels having accumulated fine sediment and/or organic materials, final project design and revegetation specifications would include measures to minimize the risk that such materials would become mobilized if a large flood flow were to occur during the first few years after construction. As feasible, the measures would remove and/or stabilize the materials adequately to resist expected erosive forces if a large flood (i.e., 25-year and higher peak flow) were to occur within the first 5 years after implementation. The following measures would be implemented:

- Remove loose, unvegetated, or otherwise unstable fine sediment and/or organic material within the remnant channel sections to be reactivated (either directly connected to the restored channel or as part of reactivated floodplain) to eliminate the potential pollutant source. The excavated materials could be salvaged for soil amendment and revegetation use in off-channel areas if suitable or disposed of properly off-site.

- Revegetate loose, unvegetated, or otherwise unstable fine sediment and/or organic material along the remnant channel sections to be reactivated (either directly connected to the restored channel or as part of the reactivated floodplain) to increase roughness and reduce velocities. Revegetation of these areas would meet species, density, planting methods, irrigation, and success criteria similar to streambank plantings.

RIVER MOUTH SIZE REDUCTION

The incised and previously dredged river mouth is overly wide and deep, allowing lake water inflow even during relatively low water surface elevations in the lake (i.e., low lake stands). The mouth configuration and the incised bed of the straightened river reach allow lake backwater effects to extend more than 2,000 feet up the river during high lake stands and, to a somewhat lesser extent, during lower lake stands. The lake backwater reduces flow velocities, reduces hydraulic complexity, flattens the channel bed, and limits habitat diversity. Although the project is not intended to address the backwater conditions normally expected during high lake stands, the Preferred Alternative includes modifications to the river mouth that would decrease its width and limit inflow of lake water during low lake levels.

The Preferred Alternative would install resistant materials to reestablish the approximate elevation of consolidated sediment underlying the channel that existed before the river was channelized. The existing river mouth location downstream of RS 95+50 would be retained, but the minimum bed elevation would be supported by a vertical grade control feature and the capacity would be reduced at RS 99+00 by installing both an engineered grade control and bioengineered revegetation. The grade-control structure would be designed to simulate the function of naturally-occurring subsurface geologic layers (i.e., resistant, cohesive lake sediments) to hold the minimum stream bed elevation at approximately 6,222 feet. This would be lower than median lake level but would restore a higher bed than the historic dredged depth. Existing woody vegetation in the areas disturbed for grade control would be salvaged and transplanted as part of the bioengineered revegetation activities. Over time, vegetation growth along the channel margins between the reconstructed lagoon outlet and the beach ridge would increase roughness, encourage aggradation, and protect against erosion.

FLOODPLAIN LOWERING

With the willing cooperation of relevant private landowners, the Preferred Alternative would improve the hydrologic connectivity of the channel and floodplain by lowering portions of the terrace in the narrow upstream reach. During lowering of the terrace, existing woody vegetation along the margins would be preserved to the extent possible, to retain the erosion resistance provided by vegetation. The surface of restored floodplains would be revegetated with a mixture of salvaged/transplanted sod and willow, willow wattles, and new plantings.

Three lowered floodplain areas (covering 315,950 square feet) would be excavated into the existing terrace surfaces to improve floodplain function from RS 0+00 to RS 5+00, RS 5+25 to RS 11+00, and RS 21+00 to RS 29+00. From RS 0+00 to RS 5+00, the excavation would cover about 41,100 square feet between the main channel and the building pad of the adjacent commercial development, averaging about 3.0 feet deep. From RS 5+25 to RS 11+00, the excavation would cover about 82,400 square feet west of the main channel, averaging about 2.5 feet deep. From RS 21+00 to RS 29+00, the excavation would cover about 192,450 square feet east of the main channel, averaging about 1 foot deep.

REMOVAL OF EXISTING FILL FROM FLOODPLAIN

In addition to the floodplain restoration described in the preceding section, the Preferred Alternative would restore floodplain function by excavating up to approximately 29,940 cubic yards of reserved fill to meet native ground elevation on about 147,900 square feet of the Lower West Side (LWS) Restoration Area. The reserve fill areas include approximately 130,250 square feet stored as “islands” adjacent to the existing channel and another 17,650 square feet of high ground between the LWS floodplain and the existing trail.

With the willing cooperation of TKPOA, the Preferred Alternative would also restore floodplain function by excavating about 5,100 cubic yards of previously placed fill at the TKPOA Corporation Yard, creating topography similar to adjacent natural surfaces, over an area of about 91,700 square feet.

If chemically and physically suitable, the excavated fill from either location would be used to backfill channel segments; otherwise, the material would be hauled to an appropriate off-site disposal site. After removal of existing fill, the entire restored floodplain surface and all disturbed areas would be revegetated with a mixture of salvaged/transplanted sod and willow, willow wattles, and new plantings.

FILL OF ABANDONED CHANNEL SEGMENTS

Where new channel segments would replace existing segments, the abandoned channel segments would be partially or completely filled. The backfilled channels and all other disturbed areas would be revegetated with a mixture of salvaged/transplanted sod and willow, willow wattles, and new plantings. The construction specifications for the filling of abandoned channels would be prepared by a qualified engineer and include standards that minimize the potential for erosion or recapture of the backfilled channels. The specifications would include compaction standards to avoid significant density differences between the fill and surrounding floodplain sediments, improve groundwater connectivity, and provide near-surface soils suitable for revegetation success. The specifications would be developed on the basis of the range of physical attributes of the soils encountered, but would generally require that fill density be within 10 percent of the average density of natural soils. Additionally, the specifications would specify maximum slope angles for the slope formed at the edges of the fill (also dependent on soil properties) and vegetative cover.

Complete backfill of about 1,700 feet of existing channel (between RS 91+50 and RS 75+00) would bring the abandoned channel areas up to meet the elevation of adjacent floodplain surfaces and restore floodplain function to about 97,146 square feet along the LWS wetlands. Partial backfill of about 4,200 feet of old channel (from RS 75+00 to RS 342+00) would provide about 165,202 square feet of floodplain swale that would become active only during moderate to large flow events.

REACTIVATION OF FLOODPLAIN TERRACE

Floodplain function and connectivity would be improved across U.S. 50 and between the main channel and the building pad of the adjacent commercial development by boring two overflow culverts through the roadfill. Two corrugated metal pipes would be installed, with the upstream inlet at an elevation that would receive water when the channel upstream of the bridge was out of bank. The culverts would have a flow capacity of about 150 cfs. The culverts would begin taking flow when the river flow is around 2,000 cfs (between the 5-year and 10-year event). The downstream outlet would have a rock-lined, energy dissipation–flared section that would activate the isolated terrace west of the channel from RS 0+00 to RS 5+00 (that would become lowered floodplain). The overflow culverts would also provide a small reduction in high flows that would be conveyed under the U.S. 50 bridge, to reduce hydraulic stress on the main channel’s banks during large streamflows. These measures would require easements and approvals from the California Department of Transportation (Caltrans) and relevant private landowners.

MODIFICATION OF EXISTING STORMWATER DISCHARGE LOCATIONS

River and floodplain modifications for the Preferred Alternative would require relocating and/or modifying existing stormwater discharge locations near RS 46+50 and RS 66+00. At locations near the existing discharge points, stormwater basins would be installed (either excavated within native meadow material or configured within a portion of the backfilled abandoned channel). The basins would replace the discharge function of existing outfalls directly to the river. Therefore, they would also increase the pretreatment of urban runoff before release into open surface water of the Upper Truckee River, by providing opportunities for settling, infiltration, and percolation. The size and volume of the features would be determined in consultation with the City of South Lake Tahoe (CSLT), the Lahontan Regional Water Quality Control Board (RWQCB), and TRPA, but the overall shape would simulate naturally occurring floodplain features and would be vegetated with native plant species.

REESTABLISHMENT OF A RIVER-OVERFLOW LAGOON

The lagoon area connected with the Upper Truckee River is a natural feature that was likely larger before human disturbance. The surface water of the dredged lagoon (the Sailing Lagoon) is hydrologically connected to Lake Tahoe through the Tahoe Keys Marina channel. The Sailing Lagoon is not connected to the river. It has been part of Tahoe Keys Marina since the 1950s, produced by dredging and fill activities to provide for various navigation routes.

The Preferred Alternative would reestablish a hydrologic connection between a restored, naturally functioning lagoon in the general location of the existing Sailing Lagoon and the Upper Truckee River near the river mouth by (1) constructing a bulkhead at the Sailing Lagoon to block its open connection with the marina and Lake Tahoe, and (2) topographically modifying the Sailing Lagoon, including creation of a reexcavated connection with the Upper Truckee River so that the river would become a surface-water source to the lagoon. (The bulkhead would be located approximately 30 feet east of the existing opening within the marina.) The restored lagoon would be analogous to what exists behind Barton Beach near Trout Creek, but on a larger scale (approximately 105,000 square feet). To restore the natural river/lagoon connection, an engineered 290-foot-long sheet pile bulkhead and earthen levee would be constructed across the dredged west end of the Sailing Lagoon approximately 30 feet east of the existing bulkhead along the marina, and the fill blocking the east end would be removed. Final design would include a flow control feature to prevent erosion when river overflows enter the lagoon (particularly if the lagoon water surface is low). The control feature (e.g., a rock-lined channel or boulder weir structure) would be designed to control the location of overflow into the lagoon and prevent the development of a permanent, uncontrolled erosive channel connecting the river to the lagoon.

Invasive species would be addressed through development and implementation of an invasive species management plan as described in Environmental Commitment 4 (see Table 2-7). Following control and removal of invasive animals and plants, local cut and fill would then be used to recontour the topography of the lagoon and connect levee areas with adjoining ground. The lagoon, levee, and all disturbed areas would be revegetated using a mixture of woody and herbaceous species, suited to the anticipated range of moisture conditions from lagoon bed to levee crest. The east end of the lagoon connection with the river would be constructed as a vertical grade-control structure to simulate the appearance and function of naturally occurring resistant geologic layers and would include bioengineered revegetation to increase erosion resistance along the shared bank between river and lagoon. A grade-control structure would set the minimum bed elevation to protect the west bank from erosion and establish a residual lagoon water surface elevation during low lake levels.

Salvaged soil and vegetation (after screening out of invasive species) would be used, along with plantings, to revegetate the proposed lagoon area, using a mixture of native plant species appropriate for planned water depths.

The Preferred Alternative would remove existing fill from behind the east end of Barton Beach to restore lagoon and wet-meadow conditions. Removal of this fill would restore lagoon and wet-meadow conditions on about 18,000 square feet. Fill would be excavated to native ground elevation, at a depth averaging about 2 feet.

Salvaged soil and vegetation would be used, along with plantings, to revegetate the restored lagoon and wet meadow, using a mixture of native plant species appropriate for planned elevations. Previously, this component was proposed only under Alternatives 1 and 2.

OVERBANK FLOW AND FLOODING CONSIDERATIONS

Under existing conditions, the incised and widened channel does not allow natural overbank flow onto the meadow during small or moderate streamflow events, an important factor for sustaining ecological values of the adjacent marsh and wet meadow. The channel is overtopped only during relatively large flows (approximately 1,000 cfs or greater). The Preferred Alternative would use a combination of modifications and reactivation of the existing channel(s) and/or construction of a new channel to decrease the elevation difference between the channel bed and the adjacent meadow, and to reduce channel capacity to a more geomorphically appropriate size. These changes would reestablish and enlarge an active floodplain that receives overbank flows during small events (e.g., the 2- to 5-year storm events).

The existing flood hazard affecting adjacent neighborhoods would not be increased by the Preferred Alternative. The alternatives would improve the active floodplain's storage volume and flow routing in the valley reach, but would not alter storage for the overall 100-year floodplain. During lower magnitude flow events, floodplain storage would be increased by lowering portions of the floodplain and partially backfilling of the abandoned channel. Hydraulic modeling using a two-dimensional, calibrated model of existing conditions and the Preferred Alternative configuration was used to verify that overbank flows could be increased for smaller flow events without an increase in flooding hazards. Additional information on flood hazards is presented in Chapter 3, "Master Responses".

2.1.3 TERRESTRIAL HABITAT RESTORATION AND ENHANCEMENT ELEMENTS OF THE PREFERRED ALTERNATIVE

In addition to the restoration and enhancement of aquatic habitats and floodplain hydrologic and geomorphic processes, the Preferred Alternative would also restore and enhance terrestrial habitats. This restoration and enhancement elements would include the restoration of riparian habitats in conjunction with river channel and floodplain restoration, and also beach dune restoration, forest enhancement, and enhancement of core habitat. These terrestrial habitat restoration and enhancement elements of the project are described below.

WILLOW SCRUB–WET MEADOW RESTORATION

The Preferred Alternative would create additional willow scrub–wet meadow along the pilot channel, on the lowered or restored floodplains, in some backfilled channel segments, and in other locations.

MONTANE MEADOW RESTORATION

Montane meadow would be restored at the TKPOA Corporation Yard under the Preferred Alternative. The restoration of the corporation yard would be contingent on the consent of TKPOA.

DUNE/BEACH RESTORATION

The Preferred Alternative includes the restoration of sand ridges ("dunes") at Cove East Beach that were graded and leveled as part of the Tahoe Keys development. The restoration would occur in conjunction with removal of fill in the southern portion of Cove East Beach and the modification and reconnection of the Sailing Lagoon to the Upper Truckee River. Approximately 8,524 cubic yards of soils from lagoon margin grading would be reused in configuring the restored dunes.

FOREST ENHANCEMENT

The Preferred Alternative includes enhancement of Jeffrey pine and Lodgepole pine forests near the Highland Woods subdivision that have been disturbed by past land uses. Enhancement measures would include the removal or relocation and restoration of user-created trails and some other disturbed areas and invasive-plant control. In particular, these enhancements would be intended to improve the quality of edge habitat between the Marsh and the forest and to provide important habitat for terrestrial wildlife species. The acreage of these enhancements is proposed is approximately 7.7 acres.

ENHANCEMENT OF CORE HABITAT

The Preferred Alternative would enhance an area of "core habitat" that contains sensitive marsh habitats in the center of the study area (251 acres). The enhancement of this area would be intended to provide greater quality habitat by being exposed to less human disturbance. The edges of the core habitat areas would be approximately 150 feet from potential sources of disturbance of wildlife by humans (i.e., study area boundaries, access trails, or the river). Recreational access within the core habitat area would be discouraged through removal of existing user created trails to native vegetation. Because the Preferred Alternative would move the river to the middle of the Marsh, this alternative could potentially allow recreational use to expand further into the Marsh from the west side of the study area than Alternatives 1, 2, 4, and 5. However, this alternative would create additional wet marsh conditions east of the existing channel, a condition that would limit human activities during spring and early summer.

2.1.4 PUBLIC ACCESS AND RECREATION INFRASTRUCTURE ELEMENTS OF THE PREFERRED ALTERNATIVE

Project objectives include balancing public access and recreation infrastructure construction and operation with habitat restoration and protection. Five main assumptions guided the design of the public access and recreation infrastructure:

1. Based on the study area's location (i.e., adjacent to neighborhoods and a high-use recreation area [Tahoe Keys Marina]) and existing use patterns, people would continue to use the Upper Truckee Marsh to some degree, even with some level of access restrictions.

2. To most effectively protect sensitive wildlife and plant habitat, public access would need to be allowed and managed to the extent that most visitors would be satisfied with their level of access and would not intrude into sensitive areas.

3. Excessive levels of recreation infrastructure and access would compromise the quality and function of sensitive habitats by promoting high levels of disturbance. However, too many overall restrictions would encourage uncontrolled access to sensitive areas.

4. Although public-access and recreation elements, such as pedestrian trails, would disturb vegetation and wildlife directly and indirectly, these features, if designed appropriately, could be valuable tools for directing most access away from sensitive habitats while maintaining existing recreation opportunities.

5. Some level of well-designed public access infrastructure in nonsensitive areas, combined with protective elements and environmental education, would be the most effective approach to protecting sensitive wildlife habitat in the study area.

Also, the 1988 litigation settlement leading to the acquisition of the Cove East Beach property in the northwest corner of the study area requires that recreational beach access west of the river mouth be maintained (*People of the State of California vs. Dillingham Development Company and TRPA*, CIV-S-85-0873-EJG [February 25,

1988]). Therefore, the focus of the elements west of the Upper Truckee River, near the LWS Restoration Area and Cove East Beach, are intended to provide public access and recreation, while the approach for the east and south sides of the study area is intended to protect habitat and allow continued existing public access away from sensitive areas of the Marsh and thus contribute to the protection of wildlife and sensitive habitat.

On the east side of the Upper Truckee Marsh no recreation improvements are currently proposed (e.g., viewpoints or additional trails); however, existing infrastructure would continue to be maintained and future nondiscretionary enhancements might result in the construction of some additional, smaller elements (e.g., signage). To the west and south of the river, proposed recreation improvements include relocation of the pedestrian trail to Cove East Beach, one viewpoint, observation area, kiosk, fishing platform, and signage.

The infrastructure proposed for recreation and public access elements of the Preferred Alternative is presented in Exhibit 2-2 and in further detail in Appendix A.

PEDESTRIAN TRAILS

Under the Preferred Alternative, the existing trail providing public access to Cove East Beach would be partially rerouted along the restored wetlands, lagoons, and dunes while still maintaining access to the shore of Lake Tahoe. The rerouted trail would be consistent with Americans with Disabilities Act (ADA) guidelines. No additional trails or bicycle paths would be constructed on the east side of the Upper Truckee River. Access along the eastern perimeter of the study area would continue through informal trails.

VIEWPOINTS AND OBSERVATION AREAS

Under the Preferred Alternative, no viewpoints would be constructed along the east edge of the study area. On the west side of the study area, one viewpoint would extend from the northeast corner of the loop trail near Cove East Beach. The existing shore zone and river mouth in this area experience high levels of recreational use and disturbances to vegetation, soils, and wildlife. The new viewpoint would provide views across the river mouth and out across the lake as well as views of the meadow and lagoon to the east. This viewpoint would direct some recreation use away from those areas, reducing disturbances to waterfowl and shorebirds. West of the Upper Truckee River, by Cove East Beach, an observation area would be connected to the pedestrian trail to Cove East Beach.

FISHING PLATFORM

The Preferred Alternative includes a fishing platform that would be constructed on the edge of the new river-connected lagoon; it would be connected to and accessed by the loop trail around the perimeter of Cove East Beach.

SIGNAGE AND KIOSK

The Preferred Alternative would include development of an interpretive program and installation of additional signage in appropriate locations (e.g., along trails, at viewpoints, and near sensitive habitats). This signage would include educational, directional, and safety information to provide public access and dispersed recreation opportunities. Signs would provide maps at trailheads to illustrate the location of open public trails and closed areas throughout the study area. Signs would also be placed near sensitive habitats to discourage disturbance of those areas by people and pets, and to stimulate a resource stewardship ethic in the public.

The Preferred Alternative would include an interpretive kiosk that would provide information to support public access, recreation infrastructure, and visitor education and interpretation of the ecological values of the Upper Truckee Marsh (e.g., maps and information regarding sensitive resources). The kiosk would be constructed on high-capability land near the end of East Venice Drive adjacent to the Tahoe Keys Marina.

2.2 RESOURCE MANAGEMENT

The Conservancy maintains existing infrastructure to support safe public access, recreation, and habitat protection measures in the study area. The agency's ongoing management actions include the following:

- **Maintenance of Facilities.** The Conservancy monitors the condition and use of existing facilities, removes litter and fire pits, and eliminates potentially hazardous conditions (e.g., user-created facilities such as makeshift bridges). Also, the Conservancy funds the Tahoe Resource Conservation District to contract with the Clean Tahoe Program for trash removal services, including weekly inspection and maintenance of 12 garbage cans located throughout the property.

- **Monitoring and Outreach.** Through a land steward, the Conservancy conducts outreach to educate visitors regarding the importance of resource protection and to discourage incompatible uses.

- **Enforcement of Policies.** The Conservancy contracts with the El Dorado County Sheriff's Office to provide security patrols in the study area and to enforce local ordinances. The Conservancy also monitors recreational use and compliance with Conservancy use policies and CSLT ordinances.

- **Mosquito Control.** The Conservancy regularly communicates with El Dorado County Vector Control District regarding mosquito production and control. In consultation with the El Dorado County Vector Control District, the Conservancy provides necessary measures for controlling mosquito production.

- **Invasive Species Control.** The Conservancy monitors for the presence of priority invasive species, and to the extent practicable, it implements appropriate measures to control and eradicate populations. The Conservancy also coordinates with the Lake Tahoe Basin Weed Coordinating Group and the Aquatic Invasive Species Working Group regarding the control of invasive species.

- **Management of Tahoe Yellow Cress (TYC) Habitat.** The Conservancy has prepared and implements a management plan for TYC in the study area. This management plan contains a number of management actions, including:

    - maintaining an enclosure to protect the Upper Truckee East TYC population and regularly evaluating the effectiveness of its design and placement;

    - participating in basinwide TYC monitoring activities; and

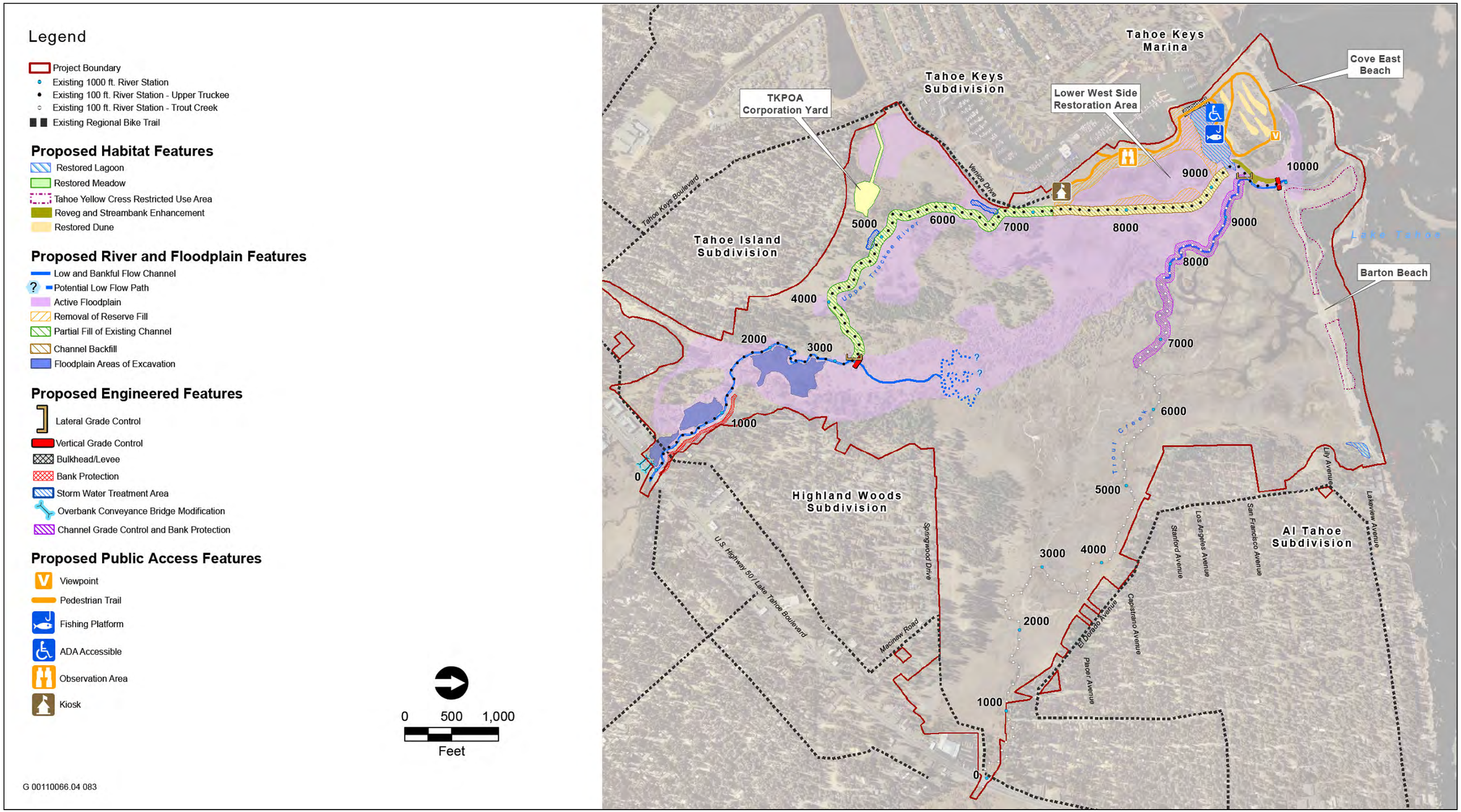
    - implementing the Imminent Extinction Contingency Plan, if necessary.

Under the Preferred Alternative, this management would continue. Additional management actions that would be implemented as part of the project are described in Section 2.5, "Environmental Commitments."

2.3 MONITORING

A monitoring framework was developed for this and other restoration projects on the Upper Truckee River to:

- characterize baseline conditions,
- track project performance related to desired outcomes,
- document effects on relevant TRPA environmental threshold carrying capacities,
- establish tentative approaches to monitoring for regulatory requirements, and
- provide information to direct adaptive management.



Source: Cardno

Exhibit 2-2 **Proposed Infrastructure for Recreation and Public Access Elements of the Preferred Alternative**

Project-specific monitoring would coordinate prior, existing, and anticipated monitoring to the extent practicable, and to be consistent with the guidance developed by the Upper Truckee River Watershed Advisory Group (Conservancy 2007).

Although the monitoring plan is intended to identify tentative approaches to anticipated regulatory requirements for monitoring of project impacts on the river, riparian, and marsh habitats, additional monitoring might be required. Permit conditions will not be known until a restoration plan has been approved by regulatory agencies.

The monitoring plan will describe the variables selected as indicators and will summarize each protocol, quality assurance mechanisms, and reporting procedures. The protocol summaries described in the framework include sampling design (i.e., location and timing of data collection), data collection methods, and guidance for data analysis. These protocol summaries are provided for:

- topographic surveys,
- groundwater elevation measurements,
- discharge measurements,
- overbank flow measurements,
- inundation mapping,
- vegetation mapping,
- quantitative vegetation sampling,
- stream bioassessment,
- avian counts,
- nest searching and monitoring,
- small-mammal trapping,
- electrofishing,
- water quality monitoring, and
- qualitative site assessment.

Monitoring of TYC conditions in the study area is described in a separate management plan prepared for that plant species (Conservancy and DGS 2007:24–31). The monitoring of TYC would continue to be part of the interagency monitoring of the species throughout the Tahoe Basin, which includes a census of all known populations and systematic searches of areas supporting unoccupied, potentially suitable habitat.

2.4 CONSTRUCTION

2.4.1 OVERVIEW

This section summarizes the likely proposed construction activities and overall schedule. Construction would generally occur between May 1 and October 15 each year for approximately 4 years. Construction is expected to begin in 2019. The actual construction schedule and phasing may vary from what is presented below depending on permit and easement requirements, final design, and the selected contractor. Construction activities would occur from 8:00 a.m. to 6:30 p.m. pursuant to Section 68.9 of the TRPA Code of Ordinances. Exceptions may be granted if it can be shown that construction beyond these times is necessary to alleviate traffic congestion and safety hazards.

Each year, construction activities would begin with mobilization, including construction and maintenance of haul roads and staging areas, installation or maintenance of BMPs, and installation of signage in the project vicinity. Similarly, each year, closing activities would include winterization (i.e., installing BMPs in disturbed areas, demobilizing equipment, stabilizing access roads, and shutting down the irrigation system) and, in Year 4, project shutdown.

2.4.2 CONSTRUCTION ACTIVITIES AND SCHEDULE

The construction activities that are anticipated to occur each year to implement the Preferred Alternative are described below. Exhibit 2-3 shows public-road access locations, prospective haul routes, and potential storage/staging areas (some or all of the areas may be required and used, pending authorization for those on private properties). Table 2-4 presents the staging area acreages. Table 2-5 lists a likely sequence of activities for the engineered elements associated with the Preferred Alternative and the estimated duration of each activity. This table includes all proposed activities on public lands as well as those that are contingent upon private landowner agreements. Therefore, the actual sequence and phasing, including temporary stockpiling needs, could vary.

YEAR 1

Year 1 construction activities would commence with mobilization activities that would take up to 1 month to complete. These mobilization activities would include constructing staging areas and haul roads, installing BMPs, and placing signage. Expected activities would include delivery and storage of construction equipment and materials and establishing worker parking. Public roads would be used to access the staging areas. All construction equipment and haul trucks would operate on internal haul roads.

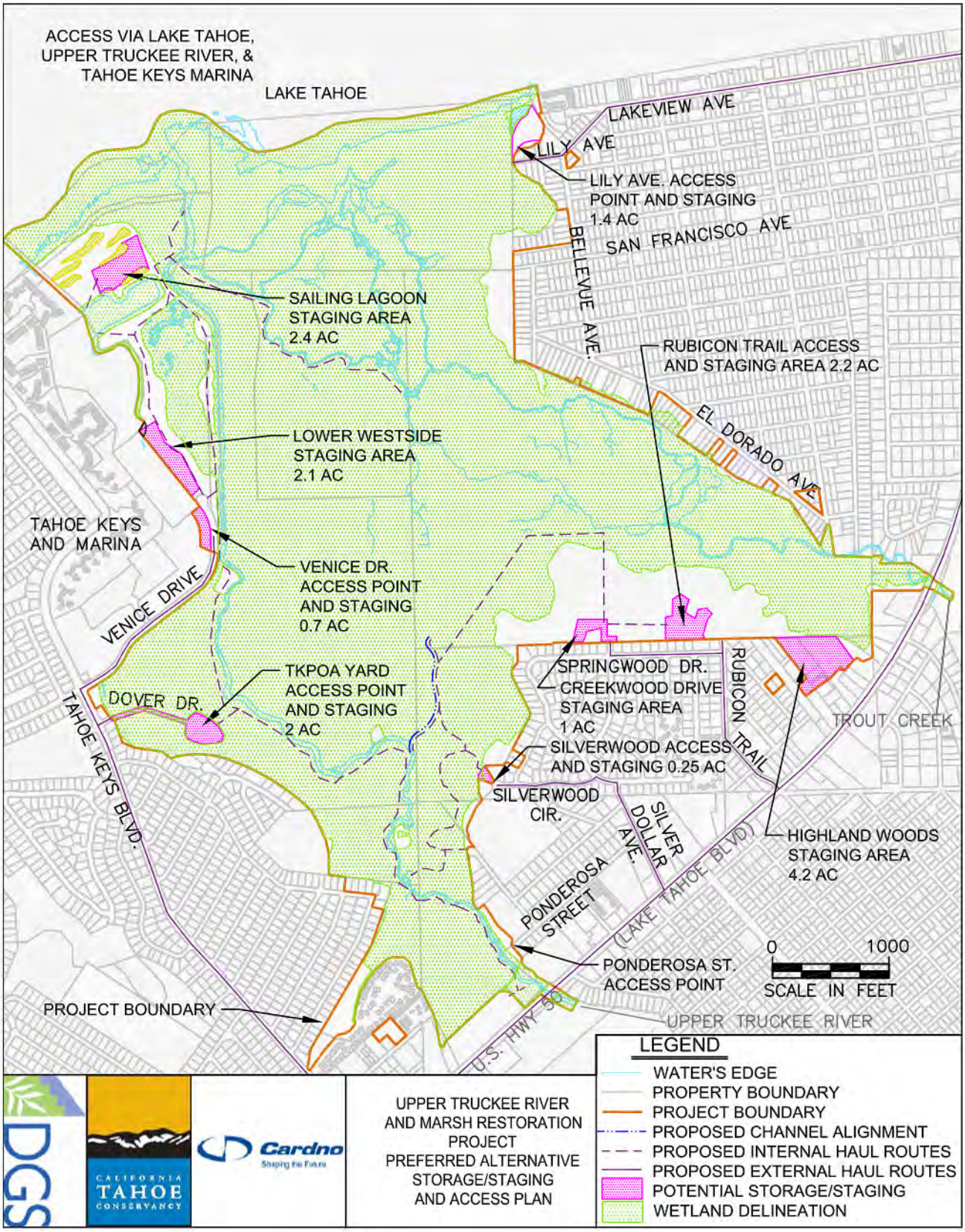
Subsequent activities would include much of the earthwork required for the river and floodplain grading: lowering the terrace sections and recontouring existing secondary channels (on private lands), and constructing the pilot channel, vertical grade control, and install bank protection measures. These activities would require 1–3 months to complete.

Significant excavation and soil movement activities would occur on-site in Year 1. The excavated material that is not required for reuse in the same year would be stockpiled temporarily on-site at one of the storage areas, prioritizing those outside of the 100-year floodplain. The excavated materials would be transported to the staging areas on haul roads. After excavation, permanent revegetation and temporary irrigation would be installed in work areas at final grade, as soon as possible. The general haul route for the off-site sediment transport would likely be from Venice Drive to Tahoe Keys Boulevard and then to U.S. 50.

During construction of channels, it is possible that dewatering of excavations (i.e., removal of collected water) may be required. To minimize the potential for dewatering, construction activities within the live channel would be avoided whenever possible. When construction within the live channel is required, barriers would be used to isolate the work areas from any flowing water. Seepage into the isolated work areas would be pumped and used for irrigation and dust control. If the quantities of water were to exceed the demands for dust control or could result in irrigation runoff, temporary and portable detention basins would be constructed. The basins would be created using portable containment berms and used to store and treat the groundwater effluent. The stored water would be used for irrigation or dust control or treated to meet surface-water discharge requirements and discharged back into the live channel.

YEAR 2

During Year 2, revegetation and irrigation work would continue on the pilot channel, secondary channels, and lowered floodplain modifications. The streambed and bank stabilization on lower Trout Creek would be completed. Vertical grade controls would be constructed at the downstream end of the site (by the Trout Creek confluence and at the river mouth). Overflow culverts would be installed under U.S. 50 through the embankment fill. Throughout the construction season, the revegetation treatments conducted during Year 1 would be irrigated and inspected.



Source: Cardno 2015

Exhibit 2-3 **Preferred Alternative—Storage/Staging and Access Plan**

Table 2-4
Staging Area Temporary Impacts

Staging Area	Square Feet	Acres
TKPOA Yard	86,504	1.99
Creekwood	41,983	0.96
Rubicon Trail	96,509	2.22
Highland Woods	183,563	4.21
Silverwood	10,970	0.25
Lily Avenue	60243	1.38
Sailing Lagoon	107,838	2.48
Lower Westside	92,377	2.12
Venice	32,270	0.74

Source: Data compiled by Cardno in 2015

Table 2-5
Sequence and Duration of Activities for Engineered Elements of the Preferred Alternative

Activities/Engineered Element	Duration (months)
YEAR 1 ACTIVITIES	
Mobilization. Build haul roads and staging areas. Install BMPs and place signage.	1
Lowered Floodplain. Excavate the existing terrace between RS 0+00 and RS 5+00, RS 5+25 and RS 11+00, and RS 18+00 and RS 29+00. Haul excavated material that is not reused to the on-site TKPOA Corporation Yard, LWS, or Sailing Lagoon staging areas (or alternatively to the Rubicon Trail or Highland Woods staging) for stockpiling until it is used for backfill in Year 3.	2
Existing Secondary Channel. Excavate the elevation of the inlet and outlet of the existing secondary channel (west high-flow channel) at RS 05+25 and RS 11+00 to an elevation that allows flow into the secondary channel when the total flow exceeds the design flow of the main channel. Recontour the existing secondary channel (east high-flow branch) between RS 18+00 and RS 29+00 to function as part of the lowered floodplain.	0.5
Pilot Channel and Vertical Grade Controls. Excavate the pilot channel off the main river channel near RS 32+00 with a top width of approximately 38 feet and average depth of 4 feet. Haul any of the excavated material that is not reused to the TKPOA Corporation Yard (or other staging areas) for stockpiling until it is used for backfill in Year 3. Construct vertical grade-control structure at RS 32+00 on the new low-flow alignment (pilot channel) to stabilize the elevation of the inlet of the new channel. Leave a protective plug of native material in place and/or install temporary protective measures within the pilot channel to retard flow velocities and depths until Year 3.	2.5
Bank Protection. Construct bank protection between RS 0+00 and RS 13+00.	2
Revegetation/Irrigation. Conduct permanent revegetation and install temporary irrigation as soon as feasible in all work areas at final grade.	1
Winterization. Install BMPs on all disturbed areas, “demobilize” all equipment from the site, remove or stabilize all access roads, and shut down the irrigation system.	0.5
YEAR 2 ACTIVITIES	
Mobilization. Inspect and/or rebuild haul road and staging areas. Reinstall BMPs as needed and restart the irrigation system.	1

Activities/Engineered Element	Duration (months)
Pilot Channel, Existing Secondary Channel, and Lowered Floodplain. Inspect to evaluate the condition of Year 1 grading and revegetation. Initiate irrigation as soon as possible and inspect revegetation monthly.	5
Overflow Culverts. Construct overflow culverts under U.S. 50 through the embankment fill. Culverts are to be plugged and remain so until lowered floodplain has sufficient revegetation.	1.5
Vertical Grade Controls and River Mouth Modification. Construct vertical grade-control structure(s) and streambank stabilization measures along about 2,600 feet of lower Trout Creek (from RS 66+00 to RS 95+50) to stabilize the existing bed elevation, and at RS 99+00 on the Upper Truckee River to raise existing bed elevation. Install bioengineered revegetation at and around structures.	2
Bulkhead and Levee. Install vertical sheet pile bulkhead extending from approximately 30 feet east of the existing sheet pile along the Tahoe Keys Marina channel. Isolate the Sailing Lagoon, pump/drain, and excavate sediment (including invasive plants and animals if present). Haul sediment unsuitable for reuse to a permitted off-site disposal area. Construct an earthen levee along the east side of the sheet pile bulkhead contoured to meet desired lagoon shape.	2
Restored Lagoon. Recontour the Sailing Lagoon, aside from the area near RS 93+00 where it will later be reconnected to the river (in Year 3).	1
Revegetation/Irrigation. Conduct permanent revegetation and install temporary irrigation at final grade as soon as feasible in all work areas.	1
Winterization. Install BMPs on all disturbed areas, “demobilize” all equipment from the site, remove or stabilize all access roads, and shut down the irrigation system.	0.5
YEAR 3 ACTIVITIES	
Mobilization. Inspect and/or rebuild haul road and staging areas. Reinstall BMPs as needed and restart the irrigation system.	1
Recontoured Existing Channel, Existing Secondary Channel, and Lowered Floodplain. Inspect to evaluate the condition of prior grading and revegetation. Initiate irrigation as soon as possible and inspect revegetation monthly.	5
Excavation of Reserve Fill at LWS Restoration Area and Fill at TKPOA Corporation Yard. Excavate reserve fill located at the LWS Restoration Area and fill at the TKPOA Corporation Yard for storage and then reuse in backfilling the existing channel.	1
Public Access and Recreation Infrastructure Elements. Construct all public-access facilities and recreation infrastructure elements.	1.5
Restored Lagoon. Excavate fill from behind East Barton Beach and revegetate/irrigate areas at grade.	0.5
Restored Dunes. Excavate new dune swales, place fill and salvaged vegetation, recontour new dune ridges, and revegetate/irrigate areas at grade.	0.5
Pilot Channel. Remove any protective soil plug or other temporary BMPs in the pilot channel. Pump water into pilot channel to pre-wet channel margins. Implement diversion to allow construction of the tie-in location between the pilot channel and the existing channel as well as the vertical and lateral grade controls at RS 32+00 on the existing channel.	2
Vertical and Lateral Grade Controls. Construct the lateral and vertical grade controls at RS 32+00 at the intersection of the new low-flow pilot channel with the backfilled existing channel to be abandoned, and the lateral grade control near RS 95+50 by the Sailing Lagoon overflow connection, Trout Creek confluence, and relocated Upper Truckee River low-flow alignment.	1
Partial Backfill and Complete Backfill of Old Channel. Place fill within the abandoned channel sections, contour to meet adjoining surfaces and simulate natural topography, revegetate, and irrigate.	2

Activities/Engineered Element	Duration (months)
Restored Lagoon. Recontour the east end of the Sailing Lagoon to reconnect the lagoon to the river, in association with construction of vertical and lateral grade controls and backfilling of the old channel.	1
Restored Floodplain. Recontour the former TKPOA Corporation Yard to match adjoining floodplain elevations and simulate natural topography, revegetate, and irrigate.	1
Stormwater Treatment Basins. Construct stormwater treatment facilities at RS 45+00 and RS 63+00.	1
Revegetation/Irrigation. Conduct permanent revegetation and install temporary irrigation at final grade as soon as feasible in all work areas.	1
Winterization. Install BMPs on all disturbed areas, "demobilize" all equipment from the site, remove or stabilize all access roads, and shut down the irrigation system.	0.5
YEAR 4 ACTIVITIES	
Mobilization. Inspect and/or rebuild haul road and staging areas as needed for the final year of work. Reinstall BMPs as needed and start up the irrigation system.	1
Revegetation/Irrigation. Inspect to evaluate the condition of all prior grading, revegetation, and BMPs. Initiate irrigation as soon as possible and inspect revegetation monthly. Reinstall BMPs as needed.	5
Winterization and Project Shutdown. Remove all construction-related BMPs and restore all disturbed areas, "demobilize" all construction equipment and related facilities from the site, remove and stabilize all access roads, and shut down the irrigation system. No additional work is planned by the contractor, except for maintenance during the warranty period.	0.5

Notes: BMP = best management practice; LWS = Lower West Side; RS = River Station; TKPOA = Tahoe Keys Property Owners Association;
Source: Data compiled by Cardno in 2015

Work related to the modification of the Sailing Lagoon and dune restoration would occur during Year 2. The lagoon would be isolated from the Tahoe Keys Marina by installing the bulkhead and levee along and east of the Tahoe Keys Marina channel and performing some of the water quality protections and invasive organism controls. The isolated lagoon would be drained, recontoured, and revegetated. Recontouring of the Sailing Lagoon would entail excavating sediment, some of which may be hauled off-site to an out-of-basin storage if not suitable for reuse in the dune reconstruction and/or channel backfill. The Sailing Lagoon modification activities could take as long as 4 months to complete.

YEAR 3

Construction of project features would be completed during Year 3, along with continued inspection and irrigation of revegetation treatments installed in Years 1 and 2. Lagoon and dune restoration would be completed in Year 3. The eastern end of the Sailing Lagoon would be recontoured, and the lagoon would be connected to the river. Fill would be removed behind East Barton Beach to restore and revegetate lagoon habitat.

Excavation and grading of the pilot channel connection and confluence and installation of the vertical and lateral grade controls in the main channel would be completed. Water would be pumped into finished channel segments and directed onto the existing vegetated Marsh surfaces. Fill would be placed in the abandoned channel sections and be recontoured; the modified stormwater treatment areas would be constructed. Permanent revegetation and temporary irrigation would be installed in all work areas at final grade.

Public-access and recreation infrastructure would be constructed during Year 3, including construction of trails, the observation area, viewpoint, kiosk, and the ADA-accessible fishing platform.

YEAR 4

Construction activities in Year 4 would be limited to revegetation and irrigation inspection and maintenance, and project shutdown.

2.5 ENVIRONMENTAL COMMITMENTS

Table 2-6 describes the proposed project's Environmental Commitments (ECs), which 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 ECs were incorporated into the proposed project and considered before the application of thresholds of significance and determination of environmental impacts. These ECs 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 alternative action that either required more detail than standard regulatory requirements to make a conclusion, or went beyond those standard practices. Additional details on the proposed project's compliance with applicable federal, state, and regional statutes and regulations and provisions can be found in Chapter 5, "Compliance, Consultation, and Coordination," of the Draft EIR/EIS/EIS and the regulatory setting section of each resource area evaluated in the Draft EIR/EIS/EIS.

Table 2-6
Environmental Commitments of the Upper Truckee River and Marsh Restoration Project

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}. 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.

Table 2-6
Environmental Commitments of the Upper Truckee River and Marsh Restoration Project

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.
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

Table 2-6
Environmental Commitments of the Upper Truckee River and Marsh Restoration Project

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.

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 (CDFW 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 or native 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.
- 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 species 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

Table 2-6
Environmental Commitments of the Upper Truckee River and Marsh Restoration Project

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.
- 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

Table 2-6
Environmental Commitments of the Upper Truckee River and Marsh Restoration Project

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.

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 species encountered (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.

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.

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,

Table 2-6
Environmental Commitments of the Upper Truckee River and Marsh Restoration Project

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.

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

Table 2-6
Environmental Commitments of the Upper Truckee River and Marsh Restoration Project

of transmission of mosquito-borne disease, and personal protective measures.
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).
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 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.
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.

Table 2-6
Environmental Commitments of the Upper Truckee River and Marsh Restoration Project

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.
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 2013

3 MASTER RESPONSES

The responses presented in this chapter address common environmental issues raised in multiple comments on the August 2013 draft environmental impact report/environmental impact statement/environmental impact statement (Draft EIR/EIS/EIS) for the Upper Truckee River and Marsh Restoration Project. They are referred to as "master responses" and are identified by topic so that reviewers can readily locate all relevant information pertaining to an issue of concern. When issues are addressed in the broader context provided by master responses, the interrelationships among the individual issues raised can be better clarified. It is also possible to provide a single explanation of an issue that is more thorough and comprehensive than separate, narrowly focused responses presented without any context. Because it avoids unnecessary repetition of information, the use of master responses also streamlines this Final environmental impact report/environmental impact statement/environmental impact statement (final EIR/EIS/EIS). Chapter 4 of this document presents all of the comment letters received and responses to specific comments received on the Draft EIR/EIS/EIS.

3.1 MASTER RESPONSE CATEGORIES

The master responses are organized by environmental topic area where multiple comments were received and are presented in the following sections of this chapter:

- Section 3.1.1, "Flooding and Flood Hazards"
- Section 3.1.2, "Traffic, Access, and Staging"
- Section 3.1.3, "Construction Noise"
- Section 3.1.4, "Management"

3.1.1 FLOODING AND FLOOD HAZARDS

This master response addresses comments on the 2013 Draft EIR/EIS/EIS related to concerns about the adequacy of the impact analysis for flooding and flood hazards, particularly related to the residential neighborhoods west of the Upper Truckee River. Although commenters typically recognized that their properties are located in existing flood-prone areas, including Federal Emergency Management Agency (FEMA)–designated flood hazard zones, they were concerned that the proposed project could worsen conditions. Commenters questioned the certainty of the hydraulic modeling presented in the Draft EIR/EIS/EIS flooding analysis (Section 3.8, "Hydrology and Flooding"). This section of this master response addresses all or part of the following comments: AO5-8, AO5-9, AO9-1, AO9-2, I3-2, I8-5, I8-7, I12-1, I14-1, I16-1, I17-1, I19-1, I25-1, I26-1, I27-1, I29-1,I30-1, I32-1, I34-1, I35-1, I36-1, I37-1, I41-1, I42-2, I42-4, I45-8, I46-1, I50-7, I51-5, I50-6, I51-11, I51-12, I56-1, and I60-1. Additional responses to flooding comments, including model accuracy and confidence assessments, can be found in Appendix D (Additional responses to comments received after the comment period).

The proposed project is a restoration project and not a flood hazard project, as the primary purpose is to improve natural resources such as water quality and wildlife habitat. To respond to comments fully, the Conservancy and its consultants completed recent updates to the Preferred Alternative flood modeling, which is documented in a technical memorandum (Appendix B). Conservancy consultants first completed flood modeling in 2005 to assess the potential flood effects from Project Conceptual Alternatives, and the Conservancy used these 2005 modeling results in the Project Draft EIR/EIS/EIS. We have completed another, more detailed and extensive modeling effort to verify the information presented in the Draft EIR/EIS/EIS and ensure the recommended alternative will not result in adverse flood impacts. While the particular methods and models differed, both modeling efforts demonstrate that the Preferred Alternative will not increase flood hazards to adjacent developed areas. The following paragraphs provide additional background and context, along with a summary of the recent flood modeling study with references to specific sections of the technical memorandum.

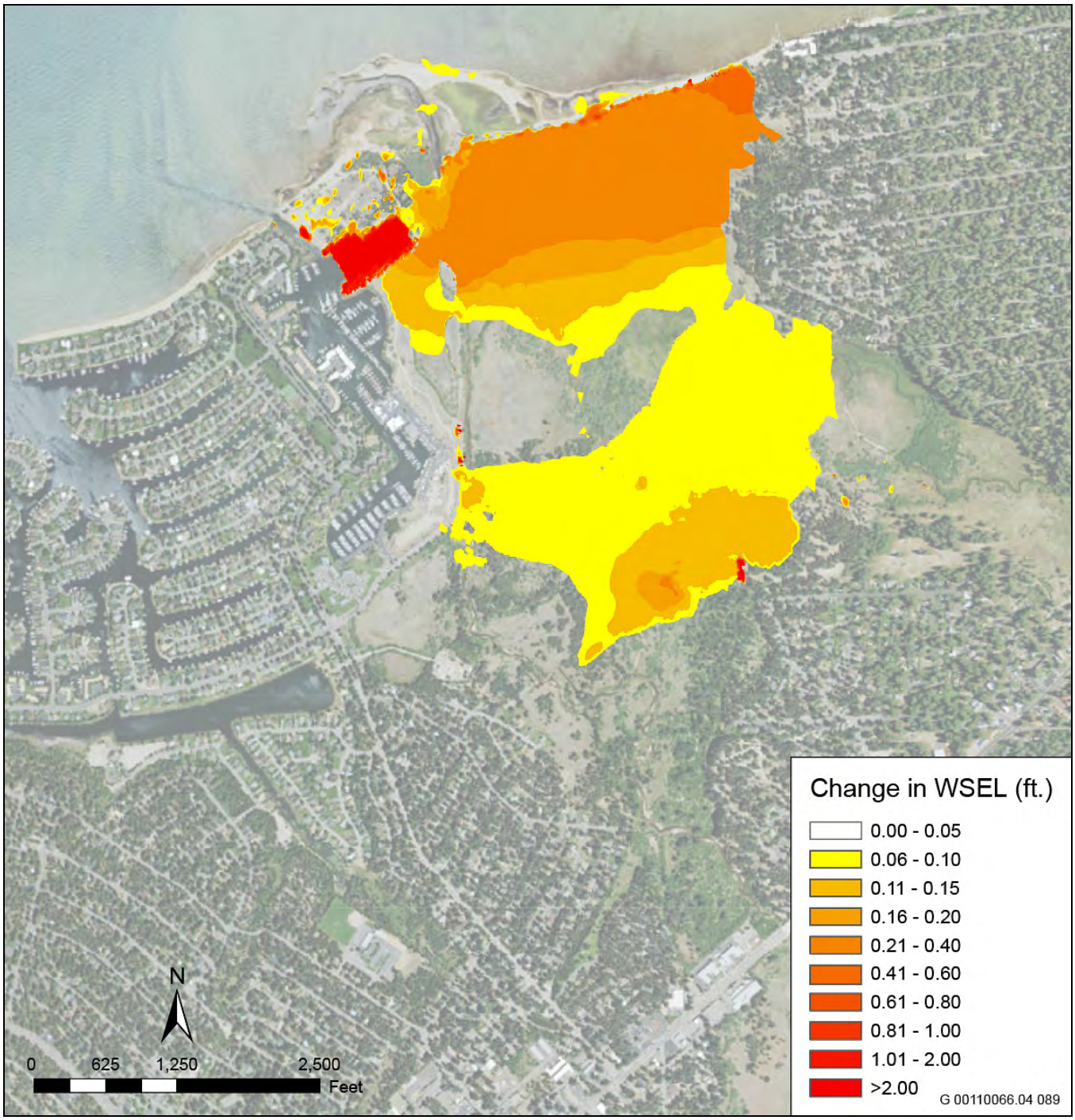
Flooding of areas adjacent to river channels is a natural process, and large winter precipitation flood events have historically inundated the Marsh and several adjacent developed areas. The Federal Emergency Management Agency (FEMA) and CSLT designated floodplain extends across the study area and into some areas of the adjacent residential neighborhoods. In January 1997 a multi-day rain-on-snow event resulted in very high flow rates on the Upper Truckee River. While flow estimates for that flood varied due to damage incurred at the United States Geological Survey gage, the estimated range of the 1997 peak flow is comparable to the statistical 100-year event analyzed by FEMA in their subsequent floodplain mapping studies. Conservancy staff visited the Tahoe Island and Sky Meadows neighborhoods during the 1997 flood and documented the conditions through various photos, some of which are included in the attached memo. Conservancy consultants visited several of these same areas in 2000 and surveyed the elevation of 1997 flood indicators at representative locations. These data points have been useful for later calibration of the flood models.

The Conservancy contracted for technical assistance from Cardno Inc. (Cardno) to perform the updated flood modeling. Cardno developed two-dimensional hydraulic models for the existing and proposed conditions, using the FEMA approved XP Solution's Stormwater &Wastewater Management Model (XPSWMM model). The Conservancy and Cardno selected this model because it uses detailed topographic and site information, and also because it successfully represents the complex flow patterns in the shared floodplain of the Upper Truckee River and Trout Creek, and surrounding urban areas. As detailed in the attached technical memorandum, the Cardno modeling effort includes numerous conservative approaches and assumptions to replicate the "worst case" flooding scenario. The Conservancy requested this approach to reduce uncertainties while providing the highest level of technical assurance that the Preferred Alternative will not adversely impact nearby private properties.

Cardno prepared the technical memorandum, which documents the details of the model, including the model inputs, outputs and processing, along with the model results for the existing and proposed conditions. Cardno modeled the 10 and 100-year events, based on parameters and guidance from a recent 2012 FEMA modeling effort. For additional information, specifics, and results of this updated modeling effort please refer to Appendix B.

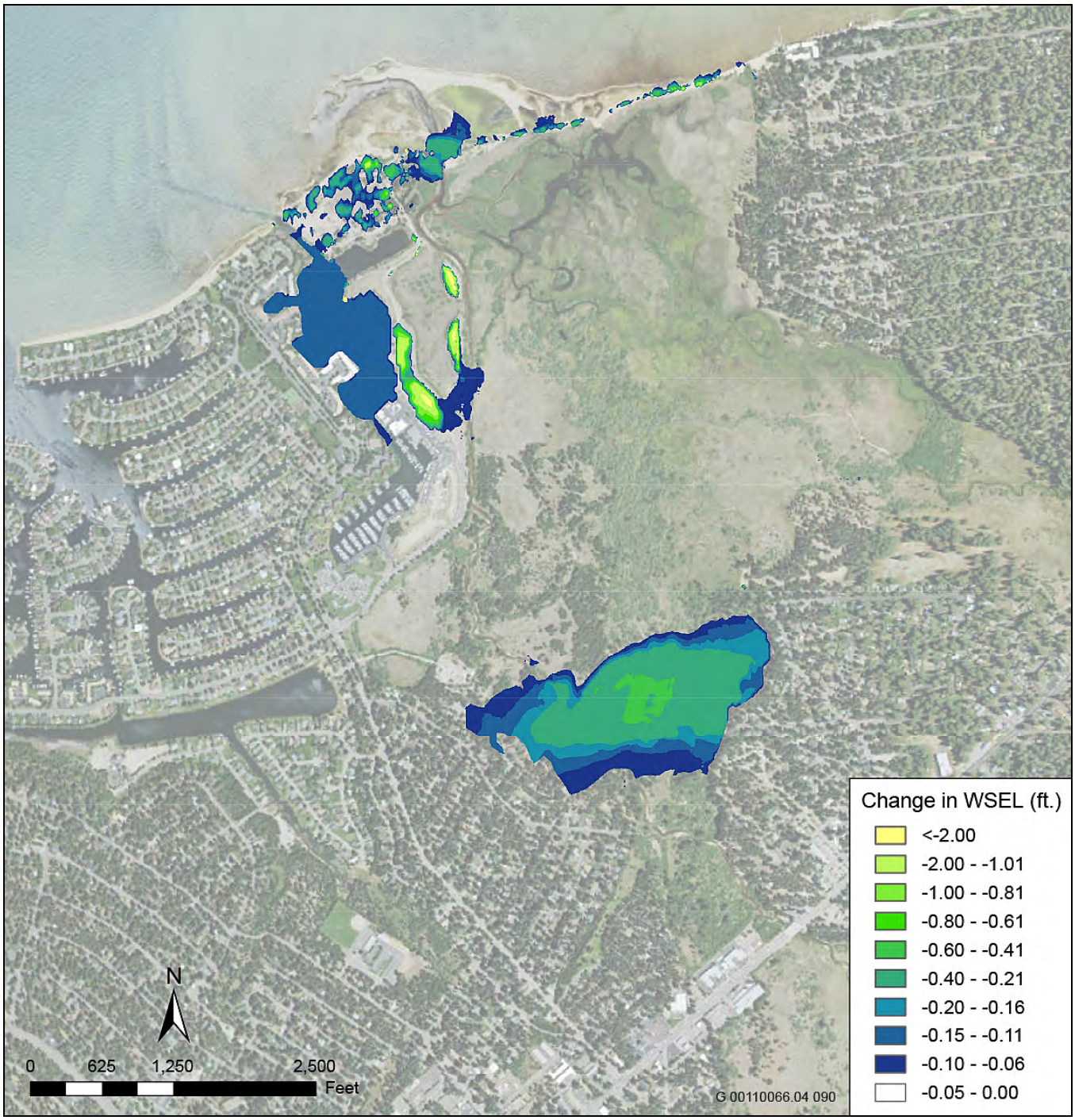
The modeled 100-year flood extent under the existing condition scenario aligns very closely to the mapped FEMA regulatory 100-year floodplain, and the surveyed flood indicators from the 1997 flood event. The Preferred Alternative does not impact the 100-year flood extent and elevations on the private properties surrounding the Marsh. Pages 4-7 and 6-6 of the technical document display the 100-year model results under the existing and proposed conditions (Exhibits 3.1-1 and 3.1-2) show the net change in flood depths in the proposed condition. Some areas in the center of the Marsh and near the barrier beach demonstrate increased flood depths, which is consistent with the project objectives to improve wetness and habitat in these areas. The model results on these figures show that the developed private and residential properties adjacent to the Marsh do not experience increased floodwaters as a result of the Preferred Alternative.

The hydraulic modeling of both the existing conditions (see Appendix B for more detail) and the proposed conditions under the Preferred Alternative presented in the technical memorandum are at the same level of detail; utilize the most detailed and up-to-date topographic and bathymetric data; calculate results using consistent grid scales; have the same hydrologic inputs, and make the same 2D model simulation assumptions. The modifications for the Preferred Alternative model runs considered the pilot-channel excavation; removal of the reserve fill along the river at the Lower West Side (LWS) Restoration area; partial backfilling of the existing channel; the reconnection of the Sailing Lagoon to the river; and the associated vegetation and roughness changes for these areas. To ensure that worst-case flooding impacts were simulated, some of the potentially beneficial changes to the floodplain were not simulated, because they involve actions that would require permissions or agreements that are not yet certain. These potential features of the Preferred Alternative include lowering of existing high-terrace sections to create active floodplain areas with more uniform meadow vegetation; removal of the TKPOA Corporation Yard fill; removal of all reserve fill at LWS; and removal of fill near the east end of Barton Beach. This facilitates a rigorous comparison of the proposed 'with Project' versus existing conditions as a reliable and quantitative basis for concluding that the Preferred Alternative is flood-neutral.



Source: Cardno 2015

Exhibit 3.1-1. 100-Year Flood WSEL Increases with Preferred Alternative



Source: Cardno 2015

Exhibit 3.1-2. 100-Year Flood WSEL Decreases with Preferred Alternative

The following two comparative figures (Exhibits 3.1-1 and 3.1-2) depict 2D model output that has been analyzed in GIS software to identify the 'difference' in 100 year water surface elevations for the Preferred Alternative versus existing condition. A 'positive' value represents a higher water surface elevations (WSEL) under the Preferred Alternative (Exhibit 3.1-1) and a 'negative' value indicates a lower WSEL for the Preferred Alternative (Exhibit 3.1-2).

The positive residuals for the 100-year event (Exhibit 3.1-1) assist with screening for adverse flood hazard impacts. There are WSEL increases in the reconnected Sailing Lagoon (2 to 5 feet), at and upstream of the reconfigured mouth (+0.1 to 0.4 feet), and throughout the back-beach lagoon across the Marsh (+0.1 to 0.8 feet). Another area of increase is in the middle of the Marsh where the pilot channel reconnects to remnant channels (+0.2 to 0.4 feet). All of these increased 100-year WSELs are desired and expected outcomes that occur without producing adverse flooding changes on surrounding developed lands.

The negative residuals for the 100-year event (Exhibit 3.1-2) assist with screening for possible improvements in hazardous flood levels. A broad area at the downstream end of the valley reach along the Upper Truckee River, including the area modified for the pilot channel, is simulated to have lowered 100-year WSELs (-0.1 to -0.4 feet). A zone of lowered WSELs (-0.06 to -0.2 feet) is simulated on the southwest margin of the 100-year floodplain, along residential areas. The largest decreases are along the LWS (-1 to -5 feet), where fill is being removed and water is allowed to spread across the restored floodplain. WSELs are also lowered downstream of the reconfigured mouth (-.05 to 2 feet).

The changes to the site associated with implementing the Preferred Alternative would; therefore, increase the 100-year WSEL relative to existing conditions at locations and in a manner that are desired and may benefit the ecosystem services of the Marsh, without expanding the floodplain or increasing flood hazards to adjacent developed lands. The results of the detailed 2D hydraulic modeling of the 100-year flood hazards, including rigorous and quantitative comparison of proposed and existing conditions, (described above and in Appendix B) indicate that the conclusion of Impact 3.8-3 (Alt. 3) "Modified 100-Year Flood Flow Directions or Floodplain Boundaries" in the Draft EIR/EIS/EIS remains applicable to the Preferred Alternative. Changes to the 100-year floodplain associated with the Preferred Alternative would not expand the extent of flooding, increase the depth of flooding, or cause inundation of any existing structures during the 100-year event. Therefore, this impact would be less than significant.

Section 15088.5 of the CEQA guidelines (State CEQA Guidelines) states that the lead agency is required to recirculate an environmental impact report (EIR) when significant new information is added after public notice is given of the availability of the Draft EIR for public review under Section 15087, but before the EIR is certified. Information can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment on a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect that the project's proponents have declined to implement. Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR.

NEPA regulations require agencies to recirculate an EIS if there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts. If the question turns on issues of fact that implicate an agency's expertise—i.e., whether new information undermines conclusions contained in a prior EIS—courts will defer to the "informed discretion" of the agency so long as the decision is not arbitrary or capricious. An agency need not prepare a new EIS to address a proposed action as long as it has already taken a "hard look" at the action's potential environmental consequences.

TRPA Compact and Code of Ordinances do not specifically state when recirculation is required; however, they rely on other State and federal regulations and when evaluating recirculation.

In the instance above, the more refined details and modeling results are provided to support the conclusion presented in the Draft EIR/EIS/EIS that the proposed project is flood-neutral. The project does not include any increase in the severity of the environmental impacts or any new impacts not previously analyzed, nor are the conclusions changed as presented for this analysis section in the Draft EIR/EIS/EIS. Rather, the refined details and updated modeling support the initial conclusion presented in the Draft EIR/EIS/EIS.

3.1.2 TRAFFIC, ACCESS, AND STAGING

This master response addresses general comments made on the adequacy, accuracy, and completeness of the traffic impact analysis, mitigation measures, and findings used for significance conclusions in the Draft EIR/EIS/EIS. In addition, the master response addresses comments associated with use of California Avenue, Michael Avenue, Washington Avenue, or Colorado Avenue for haul routes and for staging and access on Conservancy parcels and responds to all or part of the following comments: AO2-2, AO2-6, I3-6, I8-2, I8-4, I8-7, I12-1, I14-1, I16-1, I17-1, I19-1, I25-1, I26-1, I27-1, I29-1, I32-1, I34-1, I35-3, I36-1, I37-1, I40-4, I41-1, I42-1, I45-10, I46-1, I50-5, I51-2, I51-3, I51-6, I51-8, I51-9, I51-10, I52-3, I56-1, and I60-1.

The traffic analysis presented in the Draft EIR/EIS/EIS included existing and forecasted traffic volumes. A maximum-intensity approach was taken that assumed maximum probable concurrent employment in the study area, as well as maximum concurrent truck activity. Staging and access points were originally developed from a very broad perspective to allow flexibility for the contractor's use during construction. Given the level of design detail typically provided in an EIR/EIS/EIS, this broader perspective allowed for flexibility if there were other constraints that developed during the environmental analysis or through regulatory consultation and permitting requirements.

Several comments expressed concern about the use of neighborhood streets surrounding the study area; therefore, a more refined approach has been presented here. The Preferred Alternative would use main arterials to access the study area, such as U.S. Highway 50 (Lake Tahoe Boulevard), Venice Drive, and Tahoe Keys Boulevard. Some activities would require the use of Silver Dollar Avenue, Silverwood Circle, Rubicon Trail, and Springwood Drive, as well as Lakeview Avenue and Lily Avenue to access the eastern lakeshore area. Staging and the majority of hauling would occur within the study area as shown in Exhibit 2-2 in Chapter 2, "Project Description," of this Final EIR/EIS/EIS. The Preferred Alternative does not propose construction staging areas or access points on California Avenue, Michael Avenue, Washington Avenue, or Colorado Avenue, and staging on Conservancy parcels in the neighboring communities has been removed to avoid conflicts of use. Haul routes have been selected to occur immediately adjacent to construction areas and access points, and staging areas have been identified, in part, to minimize construction activities and hauling within sensitive habitats. Construction activities must occur within the floodplain, Stream Environment Zone (SEZ), and some areas of wetland and riparian vegetation to accomplish the restoration efforts and installation of recreation facilities, but disturbance would be limited to areas necessary in the footprint and essential for access.

The Preferred Alternative also limits the number of stream crossings in the study area. To minimize construction activity and hauling impacts on sensitive habitats and water quality, Environmental Commitment 5 has been included as part of the project. Environmental Commitment 5 would require permits and approvals from several entities (e.g., TRPA, the Lahontan Regional Water Quality Control Board, USACE, the California Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, and the City of South Lake Tahoe [CSLT]) that would impose conditions and requirements to minimize construction risks of water quality and vegetation degradation. The Conservancy would develop and implement several site management plans before construction, 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. Furthermore, Environmental Commitment 8 requires the Conservancy to obtain the services of a licensed geotechnical engineer to prepare a final geotechnical engineering report for the project that would address and make recommendations on the following elements as necessary:

- Site preparation
- Appropriate sources and types of fill
- Potential need for soil amendments
- Access roads, pavement, and asphalt areas
- Shallow groundwater table
- Soil and slope stability

The Conservancy would implement all recommendations contained in the final geotechnical engineering report. Special recommendations contained in the geotechnical engineering report would be noted on the grading plans and implemented as appropriate before construction begins. Design and construction of all phases of the project would occur in accordance with current CSLT code requirements at the time of construction.

To assist with conflicts between construction workers, drivers, and the community, Environmental Commitments 9, 12, and 13 have been included as part of the project. These environmental commitments require developing and implementing a construction management program, a traffic control plan, and a public outreach plan. The construction management program would inform contractors and subcontractors of work hours; modes and locations of transportation and parking for construction workers; locations of overhead and underground utilities; worker health and safety plans; truck routes; stockpiling and staging procedures; public-access routes; and the terms and conditions of all project permits and approvals.

The Conservancy would prepare a public outreach plan to inform the general public and partnering agencies, such as the CSLT, the El Dorado County Vector Control District, and El Dorado County Animal Control, regarding construction-related activities in the study area. Further, in consultation with the construction contractor, every effort would 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 would be deemed unsafe for the public to be present in the study area and/or on trails to the lake during certain construction activities. These periods of restricted access would depend on the stage of construction.

The public outreach plan would 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. This information may be communicated through signage at access points, messages posted to the Conservancy Web site, and/or public service announcements and news articles in the local newspapers, online and in print.

The traffic control plan would include measures to ensure consistency with CSLT Code Section 26-16 and State safety orders, rules, and regulations of the Division of Industrial Safety. The traffic control plan would be developed before implementation and would follow the California Department of Transportation's Standard Plans, Standard Special Provisions, and Non-Standard Special Provisions for Temporary Traffic Control Systems. The traffic control plan would be signed by a professional engineer, overseen by the Conservancy, and implemented by the contractor.

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 surrounding the study area would be maintained at all times, with detours used as necessary for road closures; however, any road closures required are expected to be minimal. The traffic control plan would be submitted to the CSLT Public Works Department for review and approval before construction of project phases whose implementation may cause encroachment on the rights-of-way of CSLT or California State roads. The traffic control plan would address safety conflicts between construction traffic and local traffic, pedestrians, and bicyclists and would 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, Sky Meadows, Highlands Woods, Tahoe Island, and Tahoe Keys subdivisions advising about upcoming project traffic before the start of construction.
- Place advisory signs along construction routes in advance of construction to alert traffic, pedestrians, 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 when truck activity is heavy (i.e., more than 10 trucks per hour).
- Provide information to all truck drivers identifying haul routes, speed limits, locations of flaggers, and any other pertinent public-safety information.
- Monitor truck and traffic conditions to identify traffic congestion as well as safety concerns regarding truck, vehicle, and pedestrian and bicycle conflicts, and adjust management approach as needed.

Concerns about construction traffic, access, and staging are expected to be resolved by the modified staging and access plan, best management practices (BMPs), construction management plan, traffic control plan, and public outreach plan. However, the Preferred Alternative also proposes no additional recreation-access construction on the east side of the marsh and minimal recreation infrastructure on the Marsh's west side, and the restoration approach requires the least amount of excavation and hauling of the proposed action alternatives Therefore, construction-traffic conflicts associated with the Preferred Alternative are expected to be less than those originally anticipated and therefore would have a less-than-significant impact. In addition, because the Preferred Alternative does not include new recreation infrastructure on the east side, it would not create increased parking pressures within the east side neighborhoods.

The State CEQA Guidelines require that an EIR describe any feasible measures that could minimize significant adverse impacts, and that the measures be fully enforceable through permit conditions, agreements, or other legally binding instruments (State CEQA Guidelines, Section 15126.4[a]). Mitigation measures are not required for impacts that are found to be less than significant. NEPA requires that an EIS identify relevant, reasonable mitigation measures that are not already included in the project alternatives that could avoid, minimize, rectify, reduce, eliminate or compensate for the project's adverse environmental effects (40 Code of Federal Regulations [CFR] 1502.14, 1502.16, 1508.8). The analysis of the proposed project, which includes Environmental Commitments 5, 9, 12, and 13, is consistent with these requirements.

3.1.3 CONSTRUCTION NOISE

This master response addresses general comments made on the adequacy, accuracy, and completeness of noise conditions, mitigation measures, and findings used for significance conclusions in the Draft EIR/EIS/EIS. It also addresses specific concerns associated with traffic noise on California Avenue and Conservancy parcels in neighboring communities and responds to all or part of the following comments: AO2-3, AO2-8, I8-1, I12-1, I14-1, I16-1, I17-1, I19-1, I24-2, I25-1, I26-1, I27-1, I29-1, I32-1, I34-1, I35-3, I36-1, I37-1, I37-2, I41-1, I46-1, I50-5, I51-4, I52-3, I56-1, and I60-1.

Activities related to construction will generate noise discernable to residents in nearby neighborhoods. While this is a change, the role of the environmental impact analysis is to quantify that change and then assess its potential to create significant impacts. The Conservancy has elected to use TRPA and El Dorado County regulatory standards as the measure of significance for noise effects.. Construction noise may be unwelcome, yet the Conservancy's responsibility in the proposed project is to avoid or mitigate significant impacts related to noise generation.

To assess potential noise impacts from construction, stationary sources, and area sources, noise-sensitive receptors and their relative exposure levels were identified. Noise (and vibration) levels of specific equipment

anticipated to be used in project construction or operation were determined and resultant noise levels at sensitive receptors were modeled assuming documented noise (vibration) attenuation rates.

The Federal Highway Administration Traffic Noise Prediction Model was used to model traffic noise levels along affected roadways, based on daily volumes and the distribution thereof from the traffic analysis prepared for this project (which is described in Section 3.16, "Transportation, Parking, and Circulation," of the Draft EIR/EIS/EIS). The project's contribution to the existing traffic-source noise levels along area roadways was determined by comparing the modeled noise levels at 50 feet from the roadway edge under no-project and plus-project conditions. The project's land use compatibility with future (2030) traffic source noise levels was determined by comparing modeled noise levels at proposed noise-sensitive receptors under plus-project conditions.

The construction activities and typical equipment required for construction under all the action alternatives were used to develop maximum combined noise levels in the Draft EIR/EIS/EIS to evaluate the effects on the nearest noise-sensitive receptors. In addition, the analysis stated that project construction would result in a short-term increase in traffic on the local area's roadway network, but this increase would not be sufficient to substantially increase traffic noise levels under all action alternatives. Typically, traffic must double to create a perceptible increase in overall traffic noise (Caltrans 1998:N-96). Because traffic would not double with implementation of the Preferred Alternative, there would not be a perceptible increase in overall traffic noise, and noise from single events (e.g., a truck driving along a haul route) would not exceed TRPA noise standards for single events.

In addition, construction activities would be temporary and noise-generating construction activities would not occur during the more noise-sensitive hours (i.e., before 8:00 a.m. and after 6:30 p.m. on weekdays, or after 5:00 p.m. on weekends or holidays). Noise from construction activity that occurs between 8:00 a.m. and 6:30 p.m. each day is exempt from the provisions of the applicable TRPA regulations. Noise from construction activity that occurs between 7:00 a.m. and 7:00 p.m. on weekdays (or between 8:00 a.m. and 5:00 p.m. on weekends and federal holidays) is exempt from the provisions of the applicable El Dorado County regulations. Because noise from project construction sources would be exempt, would not exceed the applicable standards, and would not increase overall local traffic-noise levels, impacts associated with construction were considered less than significant under all alternatives.

Under the Preferred Alternative, the closest potential haul routes on the local area's roadway network relative to the residential neighborhood on California Avenue adjacent to the study area are U.S. Highway 50 and Tahoe Keys Boulevard. The closest staging area is located at the end of Dover Avenue, a little more than 2,000 feet to the north. As described above and in Section 3.11, "Noise," of the Draft EIR/EIS/EIS, traffic typically must double to create a perceptible increase in overall traffic noise. Project construction would not contribute to a doubling of traffic on U.S. Highway 50 or Tahoe Keys Boulevard, and therefore would not generate a perceptible increase in overall traffic noise levels. General construction activities would generate perceptible increases in noise levels above ambient conditions that would exceed applicable noise thresholds (50 and 55 A-weighted decibels) within 2,500 feet for the Preferred Alternative. However, as described in Section 3.11, noise from construction activity is exempt from the provisions of the applicable TRPA regulations and applicable El Dorado County regulations if conducted within the allowable hours. Therefore, consistent with the action alternatives presented in the Draft EIR/EIS/EIS, the impact under the Preferred Alternative would be less than significant.

3.1.4 LAND MANAGEMENT ISSUES

This master response addresses comments on the Draft EIR/EIS/EIS related to management of the study area and specifically addresses concerns associated with maintaining infrastructure and services provided in the study area. This master response responds to all or part of the following comments: AO9-4, I3-1, I4-4, I4-5, I4-7, I4-8, I5-2, I5-3, I5-7, I5-9, I6-1, I7-1, I9-1, I20-2, I20-6, I21-2, I35-1, I38-1, I40-5, I44-1, I45-3, I45-6, I48-5, I50-3, I52-2, I55-1, I55-3, I57-1, and I59-3.

As described in Chapter 2, “Project Description,” of the Draft EIR/EIS/EIS, the Conservancy follows an adaptive management approach for the Upper Truckee Marsh because natural systems of the Marsh and patterns of use are dynamic in nature. This approach allows adjustments to management needs over time. Generally the management approach for the Upper Truckee Marsh study area follows overall management practices to balance public access and recreation infrastructure with sensitive resource protection measures. Also, the 1988 litigation settlement leading to the acquisition of the Cove East Beach property in the northwest corner of the study area requires that recreational beach access west of the river mouth be maintained (*People of the State of California vs. Dillingham Development Company and TRPA*, CIV-S-85-0873-EJG [February 25, 1988]).

Land management relates to elements of the physical environment important for consideration in the EIR/EIS/EIS in the following ways: human use patterns and their potential for impacts on natural systems, maintenance of facilities to protect or restore natural systems, potential for harm to humans from natural conditions influenced by management activities, and potential for conflicts between user groups. The EIR/EIS/EIS must assess how the alternatives will alter these conditions and the potential for significant impact. The following description provides more detail related to existing land management strategies and programs and how the recommended project will effect or be affected by land management.

The Conservancy’s approach relies on continued management coordination with multiple regulatory and enforcement agencies to reduce hazards of fire, trash, illicit uses, bird-plane collisions, nuisance animals and people, mosquito production, and potentially hazardous conditions (e.g., user-created facilities such as makeshift bridges). Recreational use and compliance with Conservancy use policies and CSLT ordinances require long-term management and maintenance to assure that project features continue to provide recreation benefits and protect natural resources. Through a land steward, the Conservancy conducts outreach to educate visitors regarding the importance of resource protection and to discourage incompatible uses. The Conservancy retains responsibilities as property owner of the study area that extends beyond trail uses. For example, the land management and forest health programs address stewardship responsibilities related to protection of natural and cultural resources.

Trails on the west side of the marsh are managed to protect public investment in construction costs and to provide broad access to users such that facilities meet safety needs of all age groups and abilities. The trail design incorporates features to keep through travelers on the trail surfaces to provide protection of SEZs and other sensitive sites. The design also recognizes the high desire for access to good views, Lake Tahoe and the Upper Truckee River, and other recreational amenities and provides specific, protected ways to accommodate that desire.

Authorized personnel in motorized vehicles, such as maintenance crews, would occasionally require access on trails, including the South Tahoe Public Utility District easement along user-created trails on the east side of the marsh (described further below). In recognition of the safety concerns related to mixing nonmotorized and motorized users on the same trails, these vehicles would operate under heightened safety conditions. This could include temporary trail closures, flashing lights, or warning flags or signs. Emergency medical or police/fire personnel requiring vehicle access, and using emergency lights and/or sirens, would use the protected trail surface as the law allows. No routine or administrative access in vehicles would be allowed. Parking on neighborhood streets provide legal access to the Upper Truckee Marsh where parking is allowed during the nonwinter months on CSLT streets. Because there is no proposed recreation features on the east side of the marsh under the Preferred Alternative that could potentially increase use, and each street crossing represents an access point such that the high number of potential access points reduces the potential for any one access to attract high volumes of use street parking is expected to be sufficient for recreation access.

User-created trails would be managed to protect water quality and are expected to be a neighborhood asset. To preserve neighborhood connections and an existing user-created trail system where resources permit, the design would incorporate BMPs as needed to reduce their impacts. In addition, directional and interpretive signing would be provided, and physical barriers (i.e., fencing) would be placed in critical areas to more emphatically direct users. For example, the design would place short sections of fencing at the entrances from San Francisco and Bellevue Avenues to direct all users to the user-created trails. Should new volunteer trails develop through the

marsh, additional measures such as fence sections or areas of new planting could be used to direct travel. Targeted plantings may also be used to discourage access.

Other actions include (but may not be limited to) posting of signs educating users regarding trail etiquette and trespass issues; increased monitoring to reduce litter, trespass, or other problems associated with trail access parking; and increased use of fencing to better direct users to access points. Also, the Conservancy funds the Tahoe Resource Conservation District to contract with the Clean Tahoe Program for trash removal services, including weekly inspection and maintenance of 12 garbage cans located throughout the property. In addition, the Preferred Alternative would include installation of additional signage in appropriate locations throughout the site and near sensitive habitats to discourage disturbance of those areas by people and pets.

Section 3.12, "Public Services," of the Draft EIR/EIS/EIS analyzed the potential for the alternatives to increase the demand for public services, including police protection services. Impacts associated with increased demand for police protection services were found to be less than significant for all action alternatives. The analysis looked at service needs associated with minimum, moderate, and maximum recreation levels of use. Because the Preferred Alternative is proposing infrastructure similar to existing conditions (moderate) on the west side of the Marsh and no additional recreation access on the Marsh's east side (less than all action alternatives), police protection services would remain similar to services under existing conditions.

The Conservancy contracts with the El Dorado County Sheriff's Office to provide security patrols in the study area and to enforce local ordinances. This usually involves activities with threat of imminent harm such as illegal camping or campfires. This cooperation is critical because Conservancy staff members have no law enforcement authority. It is important to note that El Dorado County law enforcement officials only exercise their authority in relation to the laws of the respective jurisdictions. Law enforcement officials would not enforce Conservancy trail and land management policies described that are not also prohibited by local or State statute. It should also be noted that the El Dorado County Sheriff's Department has an informal mutual aid agreement with the South Lake Tahoe Police Department for response during critical incidents. Additionally, the study area is within the jurisdiction of El Dorado County Animal Control. The Conservancy closes the area east of the Upper Truckee River to dogs during the waterfowl breeding season (May 1 through July 31). In addition, the Preferred Alternative would include installation of additional signage in appropriate locations throughout the site and near sensitive habitats to discourage disturbance of those areas by people and pets.

To address vector control, Environmental Commitment 10 requires the Conservancy to establish and implement a management agreement with the El Dorado County Vector Control District. As a performance criterion for the management agreement, the terms and conditions of the agreement would be designed to ensure that El Dorado County Vector Control District can maintain mosquito populations at or below preproject levels. The agreement would include but would not be limited to measures that would ensure necessary access for monitoring and control measures, El Dorado County Vector Control District review of project plans to include recommendations for management of mosquito populations, and applicable BMPs from the California Department of Public Health's Best Management Practices for Mosquito Control on California State Properties.

The Conservancy monitors for the presence of priority invasive species, and to the extent practicable, implements appropriate measures to control and eradicate populations. The Conservancy also coordinates with the Lake Tahoe Basin Weed Coordinating Group and the Aquatic Invasive Species Working Group regarding the control of invasive species.

The Conservancy has prepared and implements a management plan for Tahoe yellow cress in the study area. This management plan includes maintaining an enclosure to protect the Upper Truckee East Tahoe yellow cress population and seasonally evaluating the effectiveness of its design and placement; participating in annual basinwide Tahoe yellow cress monitoring activities; and, implementing the Imminent Extinction Contingency Plan, if necessary.

Under the Preferred Alternative, this management would continue. Additional management actions that would be implemented as part of the project are described in Section 2.5, “Environmental Commitments.”

4 COMMENTS AND INDIVIDUAL RESPONSES

4.1 INTRODUCTION

This chapter contains the comment letters received on the February 2013 Draft environmental impact report/environmental impact statement/environmental impact statement (2013 Draft EIR/EIS/EIS) for the Upper Truckee River and Marsh Restoration Project, and the responses to those comments. As noted in Section 4.2, the comments and related responses have been organized to help track the nature and origin of the comments received and considered in the preparation of this Final environmental impact report/environmental impact statement/environmental impact statement (Final EIR/EIS/EIS). Section 4.3 lists each of the commenters on the 2013 Draft EIR/EIS/EIS, their associated agencies or affiliations, and specific assigned letter/comment identifications. Section 4.4 presents each of the comment letters received on the 2013 Draft EIR/EIS/EIS, including comments made during the project's public hearings held March 13 and 27, 2013, and the responses to those comments. An additional response to comments received after the public review period is provided in Appendix C.

4.2 FORMAT OF COMMENTS AND RESPONSES

Comment letters and responses to comments are arranged in the following order:

- Section A: Agencies and Organizations
- Section B: Individuals
- Section C: Public Meetings

Each letter and each comment within a letter have been given an identification number. Responses are numbered so that they correspond to the appropriate comment. Where appropriate, responses are cross-referenced between letters or with a master response.

4.3 LISTS OF COMMENTERS

4.3.1 COMMENTERS ON THE 2013 DRAFT EIR/EIS/EIS

Table 4-1 lists all agencies and persons who submitted comments on the 2013 Draft EIR/EIS/EIS or who commented on that document during the public hearing.

Table 4-1
List of Commenters on the 2013 Draft EIR/EIS/EIS

Letter ID	Commenter	Date
Section A. Agencies and Organizations		
AO1	California State Lands Commission Cy R. Oggins, Chief, Division of Environmental Planning and Management	April 8, 2013
AO2	City of South Lake Tahoe, Public Works Department, Engineering Division Sarah Hussong Johnson, Deputy Director of Public Works/City Engineering	April 29, 2013
AO3	California Department of Fish and Wildlife Tina Bartlett, Regional Manager	April 18, 2013
AO4	U.S. Environmental Protection Agency, Region 9 Kathleen M. Gogorth, Manager, Environmental Review Office, Communities and Ecosystems Division	April 29, 2013

Table 4-1 List of Commenters on the 2013 Draft EIR/EIS/EIS		
Letter ID	Commenter	Date
Section A. Agencies, Organizations, and Businesses (cont'd)		
AO5	California Regional Water Quality Control Board, Lahontan Region Alan Miller, P.E., Chief, North Basin Regulatory Unit	April 29, 2013
AO6	California Regional Water Quality Control Board, Lahontan Region Laurie Scribe, Environmental Scientist	April 26, 2013
AO7	U.S. Department of the Interior, National Park Service Christine S. Lehnertz, Regional Director, Pacific West Region	April 26, 2013
AO8	Sierra Club, Tahoe Area Sierra Club Group Laurel Ames	April 6, 2013
AO9	Sky Meadows Homeowners Association, Inc. John A. Hollstien, President	April 2, 2013
AO10	South Tahoe Public Utility District Ivo Bergsohn, P.G., C.Hg., Hydrogeologist Paul Sciuto, P.E., Assistant General Manager	April 8, 2013
AO11	Truckee-Carson Irrigation District Rusty Jardine, Esq., District Manager	March 4, 2013
AO12	Washoe Tribe of Nevada and California Darrel Cruz, CRD/THPO	April 24, 2013
Section B. Individuals		
I1	Mike Alexander	March 14, 2013
I2	Ryan D. Anderson	March 29, 2013
I3	John & Nancy Ball, Amy Tyler Busch, Royce Dunlap	April 5, 2013
I4	Gregory W. Bergner	April 1, 2013
I5	Jean Bergner	April 8, 2013
I6	Jim Carlson	April 8, 2013
I7	Leslynn Catlett	April 7, 2013
I8	Jesse Chamberlain	April 7, 2013
I9	Sarah Chisholm	April 7, 2013
I10	Richard Cromwell	March 27, 2013
I11	Richard DeVries	March 19, 2013
I12	Marilyn Donn	April 7, 2013
I13	Helen Ebert	October 4, 2011/March 12, 2013
I14	Rich Elder	April 8, 2013
I15	Jerome Evans	February 28, 2013
I16	John R. Galea	April 8, 2013
I17	Chris Gallup	April 26, 2013
I18	John Gonzales	March 6, 2013

Table 4-1 List of Commenters on the 2013 Draft EIR/EIS/EIS		
Letter ID	Commenter	Date
I19	Ryan & Cataline Goralski	April 6, 2013
I20	Alice Grulich-Jones	March 13, 2013
I21	Lynn Harriman	March 10, 2013
I22	Judith Hildinger	April 8, 2013
I23	Anjanette Hoefer	April 7, 2013
I24	Harley & Tammy Hoy	April 8, 2013
I25	Harley Hoy	April 7, 2013
I26	Tamara Hoy	April 7, 2013
I27	? Hughes	April 6, 2013
I28	Mark Johnson	March 11, 2013
I29	Gary Jones	April 7, 2013
I30	Joanne Jones	March 5, 2013
I31	Jordans & Foudys	April 10, 2013
I32	Scott Karpinen	April 8, 2013
I33	Thomas & Martha Keating	April 21, 2013
I34	Rick Kniesec	April 7, 2013
I35	Linda Kosciolek	April 7, 2013
I36	Stan Kosciolek	April 6, 2013
I37	Michael & Carol Ledesma	April 6, 2013
I38	Kathy & Joe Link	April 8, 2013
I39	Barbara Marsden	April 7, 2013
I40	Lynne Mersereau	March 15, 2013
I41	Gantt & Jayme Miller	April 8, 2013
I42	Gantt & Jayme Miller	April 5, 2013
I43	Cindy Ochoa	April 1, 2013
I44	Peter O'Hara	April 7, 2013
I45	Gene & Ellen Palazzo	April 8, 2013
I46	Gene & Ellen Palazzo	April 7, 2013
I47	Mark A. Pevarnic	April 8, 2013
I48	Greg Poseley	April 26, 2013
I49	Jim & Barbara Randolph	April 8, 2013
I50	Catherine Rosenberg	April 6, 2013
I51	John T. & Catherine M. Rosenberg	April 8, 2013
I52	John T. & Catherine M. Rosenberg	April 24, 2013

Table 4-1 List of Commenters on the 2013 Draft EIR/EIS/EIS		
Letter ID	Commenter	Date
I53	Alia Selke	April 7, 2013
I54	Jack Sjolin	March 14, 2013
I55	Sue & Phil Stevenson	April 7, 2013
I56	Bart Sullivan	April 7, 2013
I57	Jeannine Tinsley	April 22, 2013
I58	David Triano	April 7, 2013
I59	Bonnie Turnbull	March 10, 2013
I60	Eduard Verhagen	April 7, 2013
I61	Charles Ward & Kathy Kohberger	April 3, 2013
I62	Russ Wigart	April 18, 2013
I63	Brenda Wyneken	April 8, 2013
I64	Donald & Victoria Archibald	May 11, 2013
Public Meetings		
PM1	Advisory Planning Commission Meeting	March 13, 2013
PM2	TRPA Governing Board Meeting	March 27, 2013

4.4 COMMENTS AND RESPONSES ON THE 2013 DRAFT EIR/EIS/EIS

This page intentionally left blank.

SECTION A

Agencies and Organizations

This page intentionally left blank.

Letter AO1

STATE OF CALIFORNIA

EDMUND G. BROWN JR., *Governor*

CALIFORNIA STATE LANDS COMMISSION
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

JENNIFER LUCCHESI, *Executive Officer*
(916) 574-1800 FAX (916) 574-1810
Relay Service From TDD Phone **1-800-735-2929**
from Voice Phone **1-800-735-2922**

Contact Phone: **(916) 574-1890**
Contact FAX: **(916) 574-1885**

April 8, 2013

File Ref: SCH# 2007032099

Scott Carroll
California Tahoe Conservancy
1061 Third Street
South Lake Tahoe, CA 96150

Subject: Upper Truckee River and Marsh Restoration Project Draft Environmental Impact Report/ Environmental Impact Statement/ Environmental Impact Statement (EIR/EIS/EIS)

Dear Mr. Carroll:

The California State Lands Commission (CSLC) staff has reviewed the subject Draft EIR/EIS/EIS for the Upper Truckee River and Marsh Restoration Project (Project), which is being prepared by the California Tahoe Conservancy (CTC), Tahoe Regional Planning Agency (TRPA), and Bureau of Reclamation (Reclamation). CTC, as a California public agency proposing to carry out the project, is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). TRPA is an EIS lead agency pursuant to Article VII of the Tahoe Regional Planning Compact and Chapter 3 of the TRPA Code of Ordinances, and Reclamation is an EIS lead agency pursuant to the National Environmental Policy Act (NEPA). The CSLC is a trustee agency because of its trust responsibility for projects that could directly or indirectly affect sovereign lands, their accompanying Public Trust resources or uses, and the public easement in navigable waters. Because the Project involves work on sovereign lands, the CSLC will also act as a responsible agency. AO1-1

CSLC Jurisdiction and Public Trust Lands

The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code §§6301, 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its

admission to the United States in 1850. The State holds these lands for the benefit of all people of the State for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tide line, except for areas of fill or artificial accretion or where the boundary has been fixed by agreement or a court. On navigable non-tidal waterways, including lakes, the State holds fee ownership of the bed of the waterway landward to the ordinary low water mark and a Public Trust easement landward to the ordinary high water mark, except where the boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections.

After review of the proposed Project, CSLC staff has determined that the portion of the Project located in Lake Tahoe extends waterward of the low water elevation of 6223 feet, Lake Tahoe Datum, onto State-owned sovereign land under the jurisdiction of the CSLC. The portion of the Project located in the Upper Truckee River may include State-owned sovereign land as described above; however, the extent of the State's sovereign interest at this location has not been determined. Therefore, at this time, a lease and formal authorization for the use of sovereign land will be required from the CSLC for the portion of the Project waterward of the low water mark, in Lake Tahoe. Formal authorization for the portion of the Project located in the Upper Truckee River may be required at such time in the future as the exact extent of the State's fee ownership is determined.

AO1-1 cont.

Project Description

The lead agencies referenced above are pursuing a restoration project along the most downstream reach of the Upper Truckee River, at the mouth of Lake Tahoe. The 592-acre study area is located in South Lake Tahoe, California, and bounded by U.S. Highway 50 (U.S. 50) and the Highland Woods neighborhood to the south, the Al Tahoe neighborhood to the east, Tahoe Islands/Sky Meadows and Tahoe Keys neighborhoods to the west, and Lake Tahoe to the north. The primary purpose of the Project is to restore natural geomorphic processes and ecological functions along this reach of river while providing recreation access.

Several alternative approaches to implementing the Project are being considered, along with the No Project/No Action Alternative. Depending on which alternative is selected, the proposed Project may include a minimum, moderate, or maximum recreation component. Alternatives 1 through 4 are all intended to meet the basic Project objectives, but differ in river restoration treatments and recreation infrastructure that would alter public access. A preferred or proposed alternative has not yet been defined.

1. Alternative 1. Channel Aggradation and Narrowing (Maximum Recreation Infrastructure). To restore the river channel and its connection to the floodplain, Alternative 1 would increase channel length and decrease channel capacity. A key element of this alternative would be the use of engineering elements (primarily structures in the channel) to cause sediment deposition that raises the channel bed and decreases channel capacity, and slightly reduces the capacity of the channel mouth at Lake Tahoe. Alternative 1 would also restore a

naturally-functioning lagoon in the vicinity of the existing Sailing Lagoon, lagoon and wet meadow conditions behind the east end of Barton Beach, floodplain functions at the Tahoe Keys Property Owners Association (TKPOA) Corporation Yard (contingent on TKPOA consent), and sand ridges ("dunes") at Cove East Beach. Alternative 1 provides a potential "maximum" level of recreation infrastructure that includes parking on the west side of the study area adjacent to the Tahoe Keys Marina, a connected system of bicycle paths, boardwalks, observation areas, two kiosks, and signage. Bicycle paths would be Class I/Shared-Use Paths (as described in TRPA and TMPO 2010). Bridges over Trout Creek and the Upper Truckee River (and a boardwalk) would connect the proposed bicycle paths. Bicycle paths would connect to existing regional trails near the study area.

2. Alternative 2. New Channel – West Meadow (Minimum Recreation Infrastructure). To restore the river channel and its connection to the floodplain, Alternative 2 would directly raise the streambed elevation, increase the channel length, and decrease channel capacity. A key element of this alternative would be the excavation of a new river channel that has less capacity than the existing channel. The existing river mouth would be replaced with a new smaller river mouth, similar in size to the historical river mouth prior to dredging. To protect natural resources, a boardwalk connecting the river to East Venice Drive would be constructed. Alternative 2 would provide a "minimum" level of recreation infrastructure that includes a modified Americans with Disabilities Act (ADA)-accessible pedestrian trail to Cove East Beach, five viewpoints, a fishing platform, and signage. AO1-1 cont.

3. Alternative 3. Middle Marsh Corridor (Moderate Recreation Infrastructure). To restore the river channel and its connection to the floodplain, Alternative 3 would promote the development through natural processes of a new main channel and/or distributary channels in the central portion of the study area. A "pilot" channel, similar to the channel segments constructed under Alternatives 1 and 2, would be constructed from the existing river channel to historical channels in the center of the study area, but no construction would occur in the central or northern portions of the study area. The existing river mouth would be retained with reduced capacity. Like Alternatives 1 and 2, Alternative 3 would restore a natural-functioning lagoon in the vicinity of the Sailing Lagoon and floodplain functions at the TKPOA Corporation Yard and would enhance areas of "core habitat" and forest. Alternative 3 would provide a "moderate" level of recreation infrastructure that includes three pedestrian trails, a bicycle path, a kiosk, an observation area, six viewpoints, a fishing platform, and signs at multiple locations. Alternative 3 would also include a bicycle path and a pedestrian trail near the Highland Woods neighborhood, connected to Mackinaw Road. A pedestrian trail with two segments of boardwalks is also proposed adjacent to the Al Tahoe neighborhood, from Capistrano Avenue to East Barton Beach.

4. Alternative 4. Inset Floodplain (Moderate Recreation Infrastructure). To restore the river channel and its connection to the floodplain, Alternative 4 would lower bank heights by excavating an inset floodplain along much of the river channel,

and by localized cutting and filling to create meanders in the existing straightened reach. The existing river mouth would be retained, and its capacity would not be reduced. Similar to Alternative 3, Alternative 4 would provide a "moderate" level of recreation infrastructure that includes two pedestrian trails, a bicycle path, a kiosk, two observation areas, five viewpoints, and signs at multiple locations.

5. Alternative 5. No Project/No Action. Alternative 5 would not provide any actions to restore the river channel and its connection to the floodplain in the study area. Alternative 5 would not take any direct steps to construct recreation infrastructure elements that alter public access. AO1-1 cont.

Environmental Review

As noted above, the CSLC has jurisdiction over submerged land in the bed of Lake Tahoe lakeward of elevation 6,223-feet, Lake Tahoe Datum, (low water mark) with public trust oversight of the Public Trust Easement located between elevations 6,228.75-feet, Lake Tahoe Datum (high water mark) and 6,223-feet. CSLC staff requests that the CTC consider the following comments on the Draft EIR/EIS/EIS.

General Comments and Project Activities Within CSLC Jurisdiction

1. Description of Alternatives. Section Two, *Description of Alternatives*, would be more informative to public agencies with jurisdictional and/or regulatory boundaries associated with the high and low water marks of Lake Tahoe (such as the CSLC), if it included more reference to lake bottom elevations at and below the high water mark for proposed Project activities along the shorezone of Lake Tahoe. Although this information is available in Appendix C, please incorporate this information in Section Two for description of action alternatives and proposed river mouth and shorezone activities. AO1-2

   Based on review of Section Two and Appendix C, CSLC staff understands that Alternatives 1 through 3 include modifications to the existing and proposed river mouth locations below the low water mark for Lake Tahoe. Collectively, this work appears to include dredging of a new river mouth and backfill of the existing river mouth (Alternative 2), and alteration of the existing river mouth channel and installation of gradient control structures to hold the minimum bed elevation at approximately 6,222-feet (Alternatives 1 through 3). Please be advised that proposed work below the low water mark will require application for and approval of a lease from the CSLC. AO1-3

2. Project Activities Locations. Based on review of the description of alternatives, exhibits, and Appendix C, CSLC staff also understands that the following activities are proposed to occur at or below the high water mark of Lake Tahoe and within the Public Trust Easement:

   a. Installation of bridge footings for the proposed bridge under Alternative 1;
   b. Installation of a boardwalk path east of the river mouth under Alternative 1;
   c. Dune and beach restoration work;

d. Installation of a bike path under Alternative 1;
e. Construction staging areas and earth material haul routes (primarily Alternative 1); and
f. Enclosed protected areas for Tahoe yellow cress.

AO1-3 cont.

Please be advised that the CSLC has oversight authority over activities occurring in the Public Trust Easement to ensure that such activities and uses are consistent with the Public Trust. Prior to commencement of such activities, coordination and review by the CSLC is required. In addition, please note Project applications and plans submitted to the CSLC must clearly identify elevations associated with all proposed work below the high and low water marks of Lake Tahoe.

3. To the extent possible, please provide more description in the *Construction Description* subsection and Table 2-5, for proposed channel diversion techniques for connecting surface flows from the existing channel to newly constructed channels. AO1-4

4. In Table 2-6, *Environmental Commitment 5*, for the Dewatering and Channel Seasoning Plan, Diversion Plan, and Grading and Erosion Control Plan, please include mitigation measures to minimize and avoid discharge of turbid waters into Lake Tahoe. AO1-5

5. As a global edit throughout the entire Draft EIR/EIS/EIS, please use CSLC as the acronym for the California State Lands Commission. AO1-6

Geomorphology and Water Quality

6. Reduced Sediment Supply and Potential Beach Erosion. With regard to Impact 3.9-7 (Alternatives 1 and 3), *Decreased Delivery of Coarse Sediment to Cove East and Barton Beaches*, more discussion is needed to describe the boundaries of the active littoral cell and along-shore drift processes surrounding the Project region of the Lake Tahoe shorezone. It is unclear why the analysis only considers beach and shoreline erosion impacts to shorelines within the Project area. More discussion is needed to address whether there is potential for down-shore and/or off-site shorelines to be affected by reduced sediment supply and resultant beach and shoreline erosion. AO1-7

7. For Alternatives 1 and 3, Mitigation Measure 3.9-7 states that supplemental coarse sediments would be supplied to project area beaches if beach erosion is observed through post Project monitoring. Please provide additional discussion clarifying the proposed sediment source locations.

Compliance, Consultation, and Coordination

8. Requested CSLC Jurisdiction Language. For Section 5, Subsection 5.6.2, please replace the last two paragraphs with the following language. AO1-8

"A project cannot use these state lands unless a lease or authorization is first obtained from the CSLC. Because the bed of Lake Tahoe in the study area is

within CSLC jurisdiction, use of the bed of Lake Tahoe below the low water mark for the Project would require a lease from the CSLC.

The Public Trust Easement in navigable waterways allows lateral access between the high water line and the low water line. At Lake Tahoe, this is the area between the adjudicated ordinary low water mark, at elevation 6,223-feet Lake Tahoe Datum, and the ordinary high water mark, at elevation 6,228.75-feet Lake Tahoe Datum. The CSLC has oversight authority over activities occurring in the Public Trust Easement to ensure that such activities and uses are consistent with the Public Trust. The Conservancy has been coordinating with CSLC as a responsible agency under CEQA during preparation of this DEIR/DEIS/DEIS." AO1-8 cont.

Thank you for the opportunity to comment on the Draft EIR/EIS/EIS for the Project. As a responsible and trustee agency, the CSLC will need to rely on the Final document for the issuance of any amended/new lease as specified above and, therefore, we request that you consider our comments prior to certification of the EIR/EIS/EIS.

Please send additional information on the Project as plans become finalized, copies of future Project-related documents, including electronic copies of the Final EIR, Mitigation Monitoring and Reporting Program, CEQA Findings and Notice of Determination (NOD) when they become available, and refer questions concerning environmental review to Jason Ramos, Staff Environmental Scientist, at (916) 574-1814 or via e-mail at jason.ramos@slc.ca.gov. For questions concerning CSLC leasing jurisdiction, please contact Beverly Terry, Public Land Manager, at (916) 574-0343, or via e-mail at beverly.terry@slc.ca.gov. AO1-9

Sincerely,

Cy R. Oggins, Chief
Division of Environmental Planning
and Management

cc: Office of Planning and Research
State Clearinghouse
P.O. Box 3044
Sacramento, CA 95812-3044

Jason Ramos, DEPM, CSLC
Beverly Terry, LMD, CSLC
Warren Crunk, Legal, CSLC

Letter
AO1
Response

California State Lands Commission
Cy R. Oggins, Chief Division of Environmental Planning and Management
April 8, 2013

AO1-1 The commenter describes the proposed project and states that the California State Lands Commission (CSLC) is a trustee agency responsible for sovereign lands and navigable waters of the project.

A lease and formal authorization from CSLC are required. A lease application would be completed as part of the permitting process before groundbreaking activities. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

AO1-2 The commenter requests that information about jurisdictional and/or regulatory boundaries be added to the project description.

The wetland and SEZ boundaries have been added to the Preferred Alternative Exhibit 4-1 below. Ordinary high and low water marks are included in Appendix A.

AO1-3 The commenter discusses proposed modifications below the low-water mark and advises that an application and review and approval of a lease are required.

A lease application would be completed as part of the permitting process before groundbreaking activities. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

AO1-4 The commenter requests additional construction information for channel diversion and connection activities.

The measures described in Environmental Commitment 5, "Prepare and Implement Effective Construction Site Management Plans to Minimize Risks of Water Quality Degradation and Impacts to Vegetation," also apply to planning for water isolation in local work areas, bypassing of flows during construction and pre-wetting, and activation of new channels or reconfigured lagoon areas. Environmental Commitment 7, "Prepare and Implement an Aquatic Species Rescue and Relocation Plan," also includes related plans and measures, because the diversions and connection activities must not only protect water quality, but also limit impacts on aquatic resources. Additional detail regarding appropriate measures and permit requirements would be incorporated into the project's water quality protection approach and design of best management practices (BMPs) during final design of the Preferred Alternative. At this point in the design process, the techniques and methods for flow management, diversions, and reconnections at the construction site remain flexible. This flexibility allows for future consideration and development by the contractors and permitting entities of the most effective measures for the field conditions (e.g., lake levels, river flows, weather) expected during the eventual construction year(s).

AO1-5 The commenter requests that additional measures to minimize and avoid discharge of turbid waters into Lake Tahoe be added to the environmental commitments.

Measures to minimize and avoid discharge of turbid waters into Lake Tahoe are included in Environmental Commitment 5, "Prepare and Implement Effective Construction Site Management Plans to Minimize Risks of Water Quality Degradation and Impacts to Vegetation," and in Environmental Commitment 11, "Incorporate Effective Permanent Stormwater Best Management Practices." Additional detail regarding appropriate measures and permit requirements will be incorporated in the project's water quality protection approach and BMP design during final design of the Preferred Alternative. At this point in the design process, the techniques and methods for managing water quality at the construction site remains somewhat flexible. This flexibility allows for future consideration by the contractors and permitting entities of the most effective measures for the field conditions (e.g., lake levels, river flows, weather) expected during the eventual construction year(s).

AO1-6 The commenter requests that the abbreviation "CSLC" be used for the California State Lands Commission. "CSLC" has been used throughout this Final EIR/EIS/EIS.

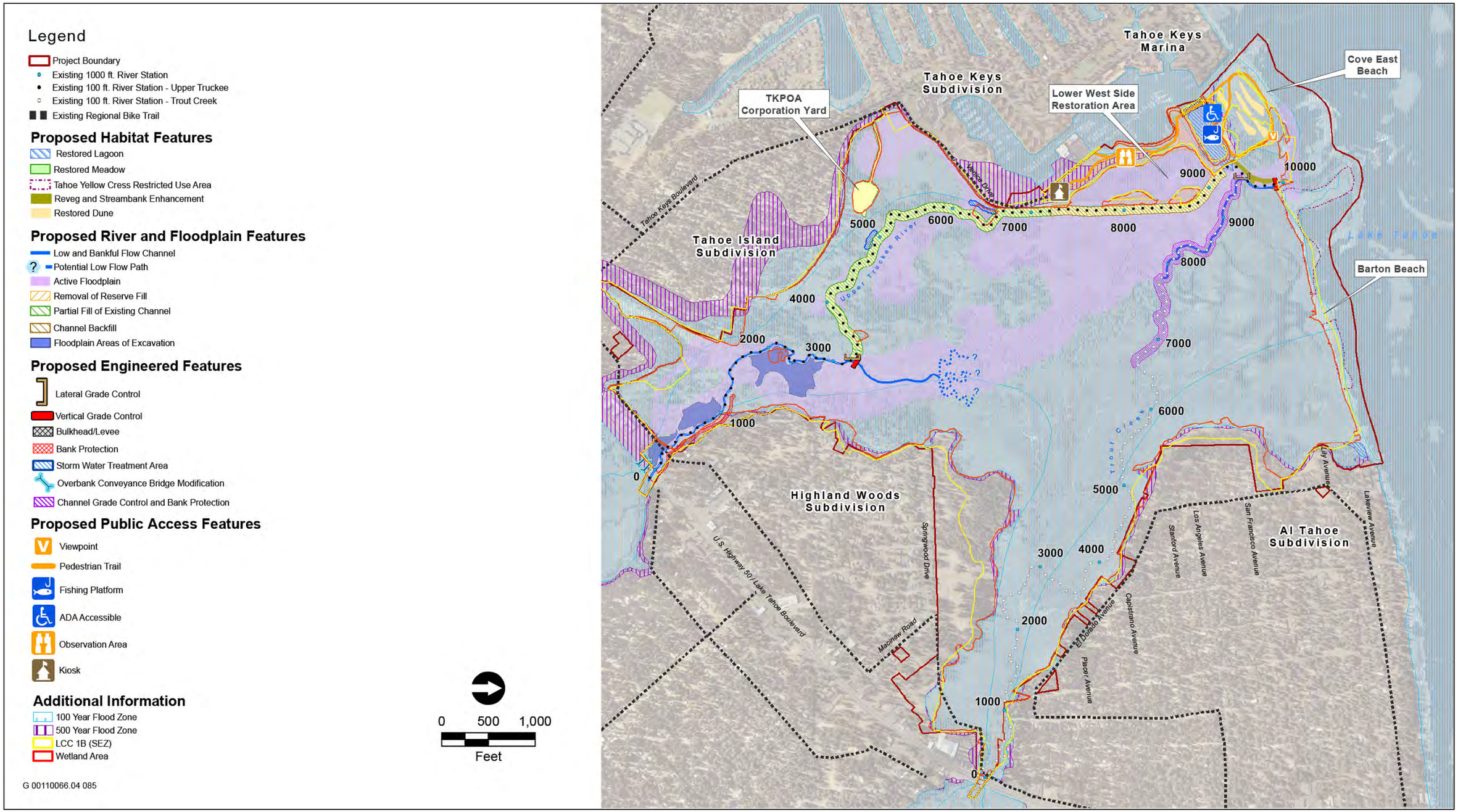
The abbreviation is also presented in Chapter 5, "Revisions to the Draft EIR/EIS/EIS."

AO1-7 The commenter requests additional information regarding littoral drift processes, boundaries surrounding the project area, and potential off-site impacts. The commenter also requests additional information regarding sources of coarse sediment if needed for mitigation.

Section 3.9, "Geomorphology and Water Quality," includes a discussion of littoral drift processes and cell boundaries in the project vicinity, including discussion of off-site areas that are within the same littoral cell (extending about 1–2 miles east). The discussion includes a description of the extent of the entire littoral cell, its relationship to other littoral cells of the lake, and the historic trends in shoreline condition (growth versus erosion) throughout the 1900s. In addition, the discussion provides information about the small volume of coarse sediment discharged by the river relative to average annual volumes dredged for the Tahoe Keys navigation channel. The discussion in Section 3.9 also clarifies that predicting the long-term shoreline condition and potential for beach erosion is speculative because of the complex interactions of climate change, lake level fluctuations, and the likely continuation of dredging without replacement that has been permitted by the Lahontan RWQCB. However, the possibility of short-term project impacts during the period of channel adjustments within the marsh is acknowledged. Mitigation Measure 3.9-7 (Alt. 3) would apply to the Preferred Alternative to address the short-term project-related impacts. This measure requires monitoring and adaptive management of the delivery of coarse sediment to Cove East and Barton Beaches. It expressly includes monitoring of coarse-sediment inputs and outputs through the study area, and not just assessment of beach erosion, to allow consideration of potential off-site impacts from retention of excessive coarse sediment in the study area. Adaptive management decisions and possible corrective actions or interventions cannot be determined at this time, but supplementing coarse sediment on beaches or at the nearshore within the Upper Truckee littoral drift cell could be necessary.

To address the commenter's concern about possible environmental impacts related to coarse-sediment sources for use in mitigation, the mitigation measure is modified as with the italicized text below:

> Mitigation Measure 3.9-7 (Alt. 3): 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



Source: Cardno, 2015

Exhibit 4-1 **Existing Regulatory Floodplain, SEZ, and Wetlands Boundaries in Relationship to the Preferred Alternative Features**

> 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.*

AO1-8 The commenter requests language replacement for Section 5, Subsection 5.6.2.

The last two paragraphs of Chapter 5, Section 5.2.6 are replaced with the following text:

> A project cannot use these State lands unless a lease or authorization is first obtained from CSLC. Because the bed of Lake Tahoe in the study area is within CSLC jurisdiction, use of the bed of Lake Tahoe below the low-water mark for the project would require a lease from the CSLC.
>
> The public-trust easement in navigable waterways allows lateral access between the high-water line and the low-water line. At Lake Tahoe, this is the area between the adjudicated ordinary low-water mark, at elevation 6,223 feet Lake Tahoe Datum, and the ordinary high-water mark, at elevation 6,228.75 feet Lake Tahoe Datum. The CSLC has oversight authority over activities occurring in the public-trust easement to ensure that such activities and uses are consistent with the public trust. The Conservancy has been coordinating with CSLC as a responsible agency under CEQA during preparation of this EIR/EIS/EIS.

AO1-9 The commenter requests that additional information on the project be sent to CSLC staff as the project proceeds, including electronic copies of the Final EIR/EIS/EIS, mitigation monitoring and reporting program, California Environmental Quality Act (CEQA) findings, and notice of determination.

The California Tahoe Conservancy (Conservancy) would provide copies of electronic copies of this Final EIR/EIS/EIS, the mitigation monitoring and reporting program, CEQA findings, and notice of determination and would continue to coordinate with CSLC throughout project review and permitting as needed. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

Letter AO2

City of South Lake Tahoe

"making a positive difference now"

April 29, 2013

Mr. Scott Carroll
California Tahoe Conservancy
1061 Third Street
South Lake Tahoe, CA 96150

Subject: Draft Environmental Impact Report (EIR)/Environmental Impact Statement (EIS)/EIS for the Upper Truckee River and Marsh Restoration Project, South Lake Tahoe, California.

Dear Mr. Carroll:

The City of South Lake Tahoe (City) appreciates the opportunity to comment on the subject document. The City recognizes this as an important project for both the California Tahoe Conservancy (Conservancy) and the community. As such, we appreciate all of the hard work and effort put towards this project by the Conservancy.

The attached letter from October 30, 2006 reflects the City's comments on the Notice of Preparation (NOP) for the document. We ask that the Conservancy verify that the comments included in the letter have been incorporated and/or addressed in the final EIR/EIS/EIS document. Additionally, we understand that there are still some remaining concerns from the residents adjacent to the project area. Consistent with our October 30, 2006 NOP comment letter NOP, we ask that the Conservancy diligently work with the public to address the following: AO2-1

- Provide detailed analysis of the potential traffic impacts of the proposed alternatives, including construction traffic in and around staging areas (Tahoe Island Park subdivision). The analysis should include existing and forecast traffic volumes and levels of service for all public streets and intersections that may be affected and identify potential impacts to bicycle, pedestrian and transit circulation. The analysis should also include potential impacts to the public street infrastructure and maintenance requirements. AO2-2
- Provide detailed analysis of potential noise impacts on surrounding sensitive receptors, including residences. This analysis should apply to both construction related noise and long term affects of noise associated with traffic and recreation. AO2-3
- Provide additional public outreach and notification for residents surrounding and immediately adjacent to the project area that may experience either short term and/or long term impacts as a result of project implementation. Provide ample opportunity for public comment and work to address comments in good faith. Provide a single point of contact for public comment to ensure clear communication with the public. AO2-4

Public Works Department · Services Center · 1052 Tata Lane · South Lake Tahoe, CA 96150-6251 · (530) 542-6030 · (530) 541-3051 FAX

Again, the City appreciates the opportunity to comment on the document. If you have any questions or require further clarification, feel free to contact me at (530) 542-6033.

Regards,

Sarah Hussong Johnson
Deputy Director of Public Works/City Engineer

c: Nancy Kerry, City Manager

Enclosure: October 30, 2006 letter from City of South Lake Tahoe Planning Manager

City of South Lake Tahoe

"making a positive difference now"

October 30, 2006

Jacqui Grandfield, UC Consultant Wildlife Program
California Tahoe Conservancy
1061 Third Street
South Lake Tahoe, CA 96150

Subject: Notice of Preparation of a Draft Environmental Impact Report (EIR)/Environmental Impact Statement (EIS)/EIS for the Upper Truckee River and Marsh Restoration Project, South Lake Tahoe, California.

Dear Mrs. Grandfield:

Thank you for the opportunity for the City of South Lake Tahoe to comment on the NOP for this project. The City has the following comments:

- The proposed project lies within the boundaries of the City of South Lake Tahoe and as a public agency with discretionary approval power over the project the City is a Responsible Agency as defined by CEQA Guidelines §15381.
- As indicated in the NOP the project lies within Plan Areas 100 and 102. The Plan Area Statements (PAS) for these areas list "riding and hiking trails" as a special use that requires the approval of the Special Use Permit by the City. PAS 100 also lists "SEZ Restoration" as a special use.
- As required by City Code §5-17 the project will need Design Review approval from the City. AO2-5
- I have enclosed the application forms for both the Special Use Permit and Design Review as well as an indication of the application fees. Ideally these applications should be submitted along with the draft EIR. Note that the "City Council, upon written request, may waive planning fees for permits required by this chapter for charitable or governmental organizations." (City Code § 32-8.1). If you choose to request a fee waiver please submit a written request to the City Planning Division prior to submitting the applications and expect that it will take approximately one month to schedule the item on the Council Agenda for action.
- The EIR will need to provide detailed analysis of the potential traffic impacts of the proposed alternatives. The analysis should include existing and forecast traffic volumes and levels of service for all public streets and intersections that may be affected and identify potential impacts to bicycle, pedestrian and transit circulation. The analysis should also include potential impacts to the public street AO2-6

Public Works Department · Services Center · 1052 Tata Lane · South Lake Tahoe, CA 96150-6251 · (530) 542-6030 · (530) 541-3051 FAX

infrastructure and maintenance requirements. This analysis should apply to both construction traffic and long term traffic generated by the project alternatives. AO2-6 cont.

- The EIR will need to provide detailed analysis of parking impacts associated with new recreation facilities and opportunities for each alternative. AO2-7
- The EIR will need to provide detailed analysis of potential noise impacts on surrounding sensitive receptors, including residences. This analysis should apply to both construction related noise and long term affects of noise associated with traffic and recreation. AO2-8
- The EIR will need to provide detailed analysis of existing flooding and drainage conditions and potential changes caused by the project alternatives. AO2-9
- The EIR will need to address potential fire hazards associated with changes to the vegetation and fire management. AO2-10

Thanks again for the opportunity to comment on the NOP and I look forward to working with you as this project progresses. If you have any questions feel free to contact me. With questions specific to traffic or flood analysis please contact the City Engineering Manager, Stan Hill at 530-542-6039 and with questions specific to fire hazard please contact City Fire Marshal, Ray Zachau at 530-542-6166.

Sincerely,

Hilary Hodges, Planning Manager
(530) 542-6024
hhodges@cityofslt.us

Letter
AO2
Response

City of South Lake Tahoe, Public Works Department, Engineering Division
Sarah Hussong Johnson, Deputy Director of Public Works/City Engineering
April 29, 2013

AO2-1 The commenter requests assurance that comments on the 2006 Notice of Preparation were incorporated into the environmental impact report/environmental impact statement/environmental impact statement (EIR/EIS/EIS) and notes public concerns.

The comments are addressed below in responses to Comments AO2-2 through AO2-4.

AO2-2 The commenter suggests a detailed analysis of potential traffic impacts. Traffic and parking impacts of the alternatives are discussed in Section 3.16, "Transportation, Parking, and Circulation," of the 2013 Draft EIR/EIS/EIS.

See Section 3.1.2, "Traffic, Access, and Staging," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS.

AO2-3 The commenter suggests a detailed noise analysis.

See Section 3.1.3, "Construction Noise," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS.

AO2-4 The commenter suggests additional public outreach and a single point of contact.

The Conservancy has held numerous outreach events since initial scoping, during development of the alternatives, and during public review. See Section 1.3, "Project History and Planning Context," in Chapter 1 of this Final EIR/EIS/EIS. The point of contact is the following:

State of California
California Tahoe Conservancy
Scott Carroll, Environmental Planner
1061 Third Street
South Lake Tahoe, CA 96150
scott.carroll@tahoe.ca.gov

AO2-5 The commenter states that the City of South Lake Tahoe (CSLT) is a Responsible Agency, that the study area's Plan Area Statements are subject to CSLT code requirements for a Special Use Permit, and that design review is required. The commenter suggests submitting the application with the Draft EIR/EIS/EIS.

An application was not completed along with the Draft EIR/EIS/EIS because a Preferred Alternative was not selected at that time. An application would be completed before construction as part of the permitting process. As described by Environmental Commitment 6, "Obtain and Comply with Federal, State, Regional, and Local Permits," the Conservancy and its contractor would obtain and comply with the terms and conditions of all permits required by applicable federal, State, regional, and local statutes and regulations. The anticipated compliance, consultation, and coordination are described in Chapter 5 of the 2013 Draft EIR/EIS/EIS. This

comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

AO2-6 The commenter suggests a detailed analysis of potential traffic impacts.

Traffic impacts of the alternatives are discussed in Section 3.16, “Transportation, Parking, and Circulation,” of the 2013 Draft EIR/EIS/EIS. See Section 3.1.2, “Traffic, Access, and Staging,” in Chapter 3, “Master Responses,” of this Final EIR/EIS/EIS.

AO2-7 The commenter suggests a detailed analysis of potential parking impacts associated with proposed recreation facilities.

Parking impacts of the alternatives are discussed in Section 3.16, “Transportation, Parking, and Circulation,” of the 2013 Draft EIR/EIS/EIS. Recreation impacts are discussed in Section 3.13, “Recreation.” Impacts associated with long-term parking needs were found to be less than significant for all action alternatives. The analysis looked at parking needs associated with minimum, moderate, and maximum recreation levels of use and the project included additional parking based on the expected use. Because the Preferred Alternative is proposing moderate infrastructure on the west side of the marsh and no additional recreation access on the east side of the marsh (No Project), parking needs would remain similar to existing conditions with informal parking access.

AO2-8 The commenter suggests a detailed noise analysis.

See Section 3.1.3, “Construction Noise,” in Chapter 3, “Master Responses,” of this Final EIR/EIS/EIS.

AO2-9 The commenter suggests a detailed flooding and drainage analysis.

Flooding and drainage impacts for each alternative are discussed in Section 3.8, “Hydrology and Flooding,” of the 2013 Draft EIR/EIS/EIS. Additional, updated and detailed flood modeling is described in Section 3.1.1, “Flooding and Flooding Hazards,” in Chapter 3, “Master Responses,” of this Final EIR/EIS/EIS.

AO2-10 The commenter suggests an analysis of potential fire hazards associated with changes to vegetation and fire management.

As described in Section 3.7, “Human Health and Risk of Upset,” of the 2013 Draft EIR/EIS/EIS, Jeffrey pine and lodgepole pine forests cover portions of the study area adjacent to the Tahoe Island, Highland Woods, and Al Tahoe subdivisions. Conditions in these forests affect the level of fire hazards in these adjacent neighborhoods. The Conservancy implements treatments to reduce the fire hazards posed by forest vegetation in the study area. Treatments include removing shrubs and trees to increase the spacing between tree crowns and the distance between understory vegetation (i.e., herbaceous plants, shrubs, and smaller tree saplings) and the tree canopy, and to reduce the total amount of vegetation and dead wood (USFS et al. 2014). Such treatments reduce the severity and rate of spread of a fire.

Forest vegetation on Conservancy property that poses fuel hazards is removed by the Conservancy. Since the Conservancy acquired majority ownership of the study area in 2000, fuel reduction efforts have focused primarily on removal of vegetation reported by citizens as dead or dying. Citizen requests for removal of vegetation in the study area perceived to be a potential fuel hazard increased after the Angora fire (June 2007), prompting the Conservancy to include the

study area on the agency's fuel hazard reduction list in Summer 2007. The Conservancy flags vegetation in the study area and on nearby Conservancy-owned parcels, such as those parcels scattered among the privately owned residential parcels in the Al Tahoe neighborhood. Once vegetation is marked, the Conservancy is responsible for removal of fuels and periodic maintenance. These practices would continue under the Preferred Alternative.

Furthermore, one of the primary benefits of the Preferred Alternative is surface-groundwater connectivity and a higher groundwater table, which would create a wetter environment over a larger portion of the marsh, further reducing fire risks.

As described in Environmental Commitment 9, the Conservancy would develop and implement a fire prevention and management plan to minimize the risk of accidental ignition of wildland fires during construction.

Letter AO3

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Region 2
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

April 18, 2013

Scott Carroll
Associate Environmental Planner
California Tahoe Conservancy
1061 Third Street
South Lake Tahoe, CA 96150

Subject: Comments on the Upper Truckee River and Marsh Restoration Project Draft Environmental Impact Report, SCH# 2007032099, El Dorado County

Dear Mr. Carroll:

The California Department of Fish and Wildlife (Department), appreciates the opportunity to provide comments on the Upper Truckee River and Marsh Restoration Project (Project) draft Environmental Impact Report (DEIR) dated February 2013. Pursuant to §15082(b) of the California Environmental Quality Act (CEQA) Guidelines, the Department offers the following responses to the DEIR in our roles both as a trustee agency and a responsible agency. As the trustee for the State's fish and wildlife resources, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife and native plants and the habitat necessary to sustain their populations. As a responsible agency, the Department administers the California Endangered Species Act (CESA), issues Lake and Streambed Alteration Agreements (LSAA), and other provisions of the Fish and Game Code that afford protection to the State's fish and wildlife public trust resources.

AO3-1

The 592-acre study area is located in South Lake Tahoe, bounded by U.S. Highway 50 and the Highland Woods neighborhood to the south, the Al Tahoe neighborhood to the east, Tahoe Islands/Sky Meadows and Tahoe Keys neighborhood to the west, and Lake Tahoe to the north. It consists of parcels owned by the California Tahoe Conservancy (CTC), the City of South Lake Tahoe, the California Department of Transportation, and private land owners. It includes the downstream reaches of Trout Creek and the Upper Truckee River (UTR), adjacent wetland and upland habitat (Upper Truckee Marsh), and the Lower West Side Wetlands Restoration Project site. The purpose of the Project is to restore natural geomorphic processes and ecological functions in the lowest reach of the UTR, improve ecological values, provide public access consistent with other objectives, and help reduce the UTR's discharge of nutrients and sediment into Lake Tahoe. Four alternative approaches to implementing the proposed Project are being considered, along with the No Project/No Action Alternative.

Conserving California's Wildlife Since 1870

Impacts to Fish Passage

The impact analysis in the DEIR identifies potentially significant and unavoidable long-term impacts to fish passage and migration at the mouth of the UTR associated with floodplain restoration actions proposed in Alternative 3. Under this Alternative, construction of a small pilot channel intended to convey flows from the UTR into multiple small channels that cross the marsh complex before re-entering the UTR upstream of Lake Tahoe has the potential to result in long-term disruption of fish passage until new channel(s) form connecting the river to the lake. Additionally, this Alternative could result in the generation of a natural barrier beach at the mouth of the UTR that during low flows could seasonally block passage from the river to the lake for prolonged periods of time. Fish species most at risk under these scenarios include Mountain whitefish that could be seasonally restricted from access to spawning habitat in the UTR by the presence of sediment barriers/insufficient flows, in addition to other native species such as Lahontan redside *(Richardsonius egregious)*, Tui chub (*Gila bicolor)*, Lahontan speckled dace *(Rhinichthys osculus)*, Tahoe sucker *(Catostomus tahoensis)*, mountain sucker *(Catostomus platyrhynchus)*, Lahontan cutthroat trout *(Oncorhynchus clarki henshawi)*, and Paiute sculpin *(Cottus beldingi)*, that would be at risk of stranding on the marsh surface during winter/spring flow events when flows are routed through the pilot channel. AO3-2

Fish and Game Code §5901 states that "it is unlawful to construct or maintain in any stream…any device or contrivance that prevents, impedes, or tends to prevent or impede, the passing of fish up and down stream". The Department believes that the design elements considered in Alternative 3 may constitute a violation of this Fish and Game Code Section should creation of the pilot channel result in disruption of fish passage between the UTR and Lake Tahoe. Therefore, the Department recommends that Alternative 3 not be considered for adoption by the CTC unless reasonable design changes can be incorporated to ensure viable fish passage remains under low flow conditions.

LSAA Notification

The DEIR identifies potential impacts to the UTR, the Upper Truckee Marsh, mouth of the UTR, and the Lake Tahoe shoreline associated with implementation of the four Alternatives. Pursuant to Fish and Game Code §1600 *et seq*, if a project will result in the substantial modification to a lake or streambed, bank, or channel, the Department must be notified, and in a majority of cases, a LSAA issued. Notification to the Department is required for proposed projects that may: 1) divert, obstruct, or change the natural flow or the bed, channel or bank of any river, stream, or lake; 2) use material from a streambed; or 3) result in the disposal or deposition of debris, waste, or other material where it may pass into any river stream, or lake. The notification requirement AO3-3

applies to any work undertaken in or near a river, stream, or lake that flows at least intermittently through a bed or channel. This includes ephemeral streams and water courses.

The Department is the "responsible agency" under CEQA for the issuance of LSAAs. When notified, the Department will determine whether or not a LSAA is required. This LSAA would include conditions to protect fish and wildlife resources, habitat, and water quality that are mutually agreed to by the Department and the project proponent. The Department is required by CEQA Guidelines Section 15096 to review the CEQA document certified by the lead agency approving the project and, from that review, make certain findings concerning the activity's potential to cause significant, adverse environmental effects. It is therefore important that the Final EIR document address all of the potential biological streambed alteration impacts including potential violation of Fish and Game Code §5901, and propose feasible mitigation. The Final EIR document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for completion of the agreement. To obtain information about the LSAA notification process, please access our website at http://www.dfg.ca.gov/habcon/1600/; or to request a notification package, contact the Lake and Streambed Alteration Program at R2LSA@wildlife.ca.gov or (916) 358-2885.

Early notification to the Department is recommended. Specific conditions in the LSAA may include site-specific conditions for construction activities and timing. Any work subject to the LSAA may not be initiated until certification of the CEQA document and payment of the appropriate fees. Obtaining a LSAA does not satisfy the requirements of either the State or federal Endangered Species Act. AO3-3 cont.

CESA Permit

The DEIR identifies potential impacts to Tahoe yellow cress *(Rorippa subumbellata)*, bald eagle *(Haliaeetus leucocephalus)*, and willow flycatcher *(Empidonax traillii)*, species listed as Endangered under CESA. If it is not possible to avoid impacts to these species, any activities resulting in the unavoidable "take" of a State-listed plant or animal species may require the Project proponent to obtain a permit from the Department pursuant to Section 2081 of the Fish and Game Code.

CESA permits are issued to conserve, protect, enhance, and restore State-listed threatened or endangered species and their habitats. A CESA permit should be obtained, if the Project has the potential to result in "take" of plants or animals listed under CESA, either during construction or over the life of the Project. If the Project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA permit. Candidate species are protected under CESA to the same extent as species listed as endangered or threatened (Fish and Game Code § 2085.)

A CESA permit may only be obtained if the impacts of the authorized take of the species is minimized and fully mitigated, and adequate funding has been ensured to implement the mitigation measures. The Department may only issue a CESA permit if the Department determines that issuance of the permit does not jeopardize the continued existence of the species. The Department will make this determination based on the best scientific information available, and shall include consideration of the species' capability to survive and reproduce, including the species known population trends and known threats to the species. Issuance of a CESA permit may take up to 180 days from receipt of an application from the applicant.

Issuance of a CESA permit is subject to CEQA documentation; therefore, the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. Any work subject to a CESA permit may not be initiated until certification of the CEQA document and payment of the appropriate fees. AO3-3 cont.

Pursuant to Public Resources Code Sections 21092 and 21092.2, the Department requests written notification of proposed actions and pending decisions regarding this project. Written notifications should be directed to this office.

We appreciate your consideration of our comments. Department personnel are available for consultation regarding biological resources, permitting processes, and strategies to minimize impacts. If you have questions please contact Patrick Moeszinger, Environmental Scientist, at 916-358-2850 or e-mail at Patrick.moeszinger@wildlife.ca.gov.

Sincerely,

Tina Bartlett
Regional Manager

ec: Jeff Drongesen
Jennifer Navicky
Patrick Moeszinger
Department of Fish and Wildlife

Tahoe Regional Planning Agency
trpa@trpa.org

State Clearinghouse

Letter
AO3
Response

California Department of Fish and Wildlife
Tina Bartlett, Regional Manager
April 18, 2013

AO3-1 The commenter states that "the impact analysis in the DEIR identifies potentially significant and unavoidable long-term impacts to fish passage and migration at the mouth of the Upper Truckee River associated with floodplain restoration actions proposed in Alternative 3 [and the Preferred Alternative]." The commenter states that these impacts on fish passage would be in violation of Fish and Wildlife Code Section 5901.

The Preferred Alternative would allow the connection between Lake Tahoe and the Upper Truckee River to form through natural geomorphic processes within the marsh and reconnect the lagoon to the river. It would restore a close approximation of pre-disturbance hydrologic and geomorphic processes and conditions within the marsh, to which the native species were adapted. The formation of multiple channels, back-beach lagoon arms, debris jams, and sandbars at the mouth of the river are all possible outcomes. Some features could be temporary, and others could persist for months or years, depending on river flow and lake level conditions. When present, such features have the potential to restrict or prevent fish passage into the river under low-water conditions. Autumn spawning species, such as mountain whitefish (*Prosopium williamsoni*), could be blocked from spawning if a sandbar or other barrier were to form at the mouth or within the marsh. CDFW staff members performed a field survey of the area extending from the proposed Alternative 3 pilot channel to Lake Tahoe on January 29, 2014. They concluded that seasonal impacts of Alternative 3 on fish passage would likely be minimal (Conservancy and CDFW 2014). The formation of a sandbar completely impeding access to the Upper Truckee River for migrating fish would be unlikely except during the driest years, and such a blockage would be brief. Debris jams could occur incidentally after high-flow events, but because of the unconfined and complex nature of the Upper Truckee River mouth, they would be unlikely to block fish passage for very long. The negative impacts of occasional brief river mouth blockages on fish populations would be mitigated and outweighed by the large-scale beneficial impacts of increased marsh and floodplain habitat. Brief temporary impediments to fish passage at the mouth of the Upper Truckee River could be eliminated or mitigated as they occur through adaptive management. After the field meeting, CDFW staff members did not see a significant problem with permitting restoration elements of Alternative 3, and the Conservancy and CDFW agreed to continue to communicate during final design and implementation to minimize risks to fish.

AO3-2 The commenter states that pursuant to Fish and Game Code Section 1600 et seq., the project requires a Lake and Streambed Alteration Agreement (LSAA) permit.

Issuance of the LSAA permit would depend on resolution of fish passage issues described in response to Comment AO3-1 and California Endangered Species Act (CESA) issues pertaining to Tahoe yellow cress (*Rorippa subumbellata*), bald eagle (*Haliaeetus leucocephalus*), and willow flycatcher (*Empidonax traillii*). Unavoidable "take" of a State-listed plant or animal species would require the project proponent to obtain a permit from the California Department of Fish and Wildlife pursuant to Section 2081 of the California Fish and Game Code.

AO3-3 The commenter summarizes the Lake and Streambed Alteration Program and CESA requirement for authorized take and mitigating impacts.

The comment is noted. See Chapter 5, “Revisions to the Draft EIR/EIS/EIS.” Section 5.2.3 has been updated to reflect the information. Additionally, see responses to Comments AO3-1 and AO3-2 above.

Letter AO4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

APR 29 2013

Myrnie Mayville
Bureau of Reclamation
P.O. Box 4310
Stateline, NV 98449
Attn: Upper Truckee River DEIS

Subject: Draft Environmental Impact Statement for the Upper Truckee River and Marsh Restoration Project, El Dorado County, California (CEQ#20130049)

Dear Ms. Mayville:

The Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (EIS) for the above project. Our review and comments are pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act.

The Draft EIS clearly demonstrates the need to restore the hydrologic functionality of the Upper Truckee River by reconnecting the floodplain, meadow, and riparian areas with surface and groundwater. Lake Tahoe water quality studies have identified the Upper Truckee River as the largest source of fine sediment from stream bank erosion (p. 3.9-13). The proposed restoration would substantially reduce the volume of fine sediment and nutrients entering Lake Tahoe, thereby supporting key water quality goals of the Tahoe Regional Planning Agency, Lahontan Regional Water Quality Control Board, and Lake Tahoe Environmental Improvement Program. EPA supports restoration of the Upper Truckee River. AO4-1

Alternatives 1, 2, 3 and 4 would decrease channel capacity and reestablish the channel's connection to an active floodplain. Reactivation of the floodplain and return of the river to more natural river processes would significantly reduce peak flows, increase the frequency of overbank flooding and floodplain storage, and enhance riparian and meadow ecosystems. We note that a preferred alternative has not been identified, but Alternative 2, New Channel West Meadow has been recognized as the environmentally superior alternative under CEQA.

We urge the action agencies to consider implementation of the alternative that maximizes ecosystem benefits. Based on our review of the Draft EIS, we have rated the project and document as *Lack of Objections* (LO). Please see the enclosed "Summary of EPA Rating Definitions." The enclosed detailed comments provide recommendations for additional documentation that should be included in the Final EIS regarding Section 404 Clean Water Act compliance, mitigation and monitoring, and cumulative impact analysis. AO4-2

We appreciate the opportunity to review this Draft EIS. Should you have any questions regarding our comments, please contact me at (415) 972-3521, or contact Stephanie Skophammer, the lead reviewer for the project. Stephanie can be reached at (415) 972-3098 or skophammer.stephanie@epa.gov. AO4-2 cont.

Sincerely,

Cornell Dennis

FOR Kathleen Martyn Goforth, Manager
Environmental Review Office
Communities and Ecosystems Division

Enclosures: Summary of EPA Rating Definitions
EPA Detailed Comments

cc: Scott Carroll, California Tahoe Conservancy
Kristine Hansen, US Army Corps of Engineers
Adam Lewandowski, Tahoe Regional Planning Agency
Robert Larsen, Lahontan Regional Water Quality Control Board
Cyndie Walchk, California State Parks
Theresa Cody, Forest Service Lake Tahoe Basin Management Unit

SUMMARY OF EPA RATING DEFINITIONS*

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ). AO4-2 cont.

ADEQUACY OF THE IMPACT STATEMENT

"Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment.

U.S. EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR UPPER TRUCKEE RIVER RESTORATION AND MARSH RESTORATION PROJECT, EL DORADO COUNTY, CA, APRIL 29, 2013

Clean Water Act Section 404

The Draft EIS states that formal wetland delineations have not been completed for the study but that much of the study area falls in the floodplain and would likely be classified as wetlands (p. 3.4-38). The Conservancy is expected to coordinate with the US Army Corps of Engineers (Corps) to obtain appropriate permits before construction would begin (p. 5-3).

AO4-3

Recommendations:

We recommend the Final EIS include additional information regarding the 404 permitting process for this project. The current status of the wetlands delineation and the ongoing consultation should be described and documented. We urge California State Parks, TRPA, and Bureau of Reclamation to work with the Sacramento Office of the Corps, as soon as possible, to ensure Section 404 compliance for this project.

Mitigation and Monitoring

To address potential local construction erosion effects, the action alternatives include mitigation measures requiring bed and bank stabilization measures at and immediately upstream and downstream of bridge removal sites and downstream of treated reaches (p. 3.8- 2). Best Management Practices (BMPs) are included in Table 2-6 Environmental Commitments.

AO4-4

Recommendation:

The Final EIS should include additional information on the ability of proposed mitigation measures to provide long-term avoidance and reduction of local erosion effects of the proposed action. We recommend including a chart describing mitigation performance standards, monitoring and reporting requirements, responsible parties, implementation schedule, and maintenance requirements for these measures.

Alternative 3 will include design features where portions of the channel would be directly modified with the expectation that natural river processes would return and achieve channel equilibrium over time (p. 2-11). Mitigation measures and monitoring are proposed to minimize short-term effects of construction (p. 3.9-61). However, it is not clear whether monitoring is included to verify the design assumption that natural processes of erosion and deposition would establish appropriate channel dimensions over time in areas where the stream is not fully reconstructed.

AO4-5

Recommendation:

We recommend the proposed action include validation monitoring to verify whether the restored river channel is adapting as predicted to the actively reconfigured channel.

Cumulative Impact Analysis

EPA appreciates the cumulative impact discussion beginning on page 3.18-1 of the document. Given the dozens of projects underway and being proposed in the Upper Truckee and Trout Creek watershed, it is especially important that all agencies (Forest Service, the Conservancy, Reclamation, CA State Parks, and others) are coordinating their efforts as much as possible. EPA is aware of the Upper Truckee River Restoration Strategy Draft Report which summarizes these efforts and on-going studies.

AO4-6

Recommendation:
Table 2 of the Strategy document refers to a comprehensive list of Upper Truckee river projects with corresponding acreages of floodplain and river restoration. We recommend such a table, as well as a map, be included in the Final EIS to inform the cumulative impact analysis regarding specific acreages and approximate length of channel restored. AO4-6 cont.

Letter
AO4
Response

U.S. Environmental Protection Agency, Region 9
Kathleen M. Gogorth, Manager, Environmental Review Office, Communities
April 29, 2013

AO4-1 The commenter summarizes the proposed restoration and notes the environmentally superior alternative.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

AO4-2 The commenter rates the project and document as *Lack of Objections* (LO), presents definitions, and refers the reader to recommendations discussed below.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

AO4-3 The commenter recommends including additional information regarding 404 permitting in the Final EIR/EIR/EIS.

The entire study area was surveyed in 2013/2014 for determining waters of the United States and waters of the State. Part of the study area has been delineated (SPK-2014-00321). The larger area delineation will be submitted to the U.S. Army Corps of Engineers for determination in 2016.

AO4-4 The commenter suggests a chart describing mitigation performance standards, monitoring and reporting requirements, responsible parties, implementation schedule, and maintenance requirements.

A monitoring, maintenance, and reporting program has been developed outlining the mitigation requirements which includes mitigation performance standards, monitoring and reporting requirements, responsible parties, an implementation schedule, and maintenance requirements. See Appendix D of this Final EIR/EIS/EIS.

AO4-5 The commenter suggests validation monitoring for Alternative 3 restoration efforts to verify that the restored river channel is adapting as predicted.

The Conservancy will conduct compliance monitoring to document that mitigation requirements and permit reporting requirements are satisfied. Additionally, the Conservancy will perform monitoring to inform adaptive management decisions, which will include consideration of how well the project design and implementation is functioning relative to design objectives. Although the Conservancy is supportive of the type of scientific validation monitoring suggested by the commenter and participates in such evaluations as part of grant-funded research programs, this comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

AO4-6 The commenter recommends that an updated table and map of projects included in the cumulative impact analysis be provided in the final document, including acreages and lengths of channel restored.

An updated table of cumulative projects is presented in Chapter 5, “Revisions to the Draft EIR/EIS/EIS.” Data available to present a map of acreages and lengths of channel of each project are beyond the scope of this EIR/EIS/EIS.

Letter AO5

CALIFORNIA
Water Boards

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Lahontan Regional Water Quality Control Board

April 29, 2013

California Tahoe Conservancy
Attn: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

COMMENTS ON THE SCH# 2007032099 DRAFT ENVIRONMENTAL IMPACT REPORT/ ENVIRONMENTAL IMPACT STATEMENT FOR THE UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT, EL DORADO COUNTY

Thank you for the opportunity to provide comments on the Draft Environmental Impact Report/Environmental Impact Statement (Draft EIR/EIS) for the Upper Truckee River and Marsh Restoration Project (Project) adjacent to Lake Tahoe. Water Board staff in the Water Board Regulatory Compliance Division are augmenting comments of the Planning and Restoration Division with the following comments:

I. Regulatory requirements

a. Basin Plan Prohibition Exemptions

The Final EIR/EIS should describe how the specific exemption criteria are satisfied for each project element. **We here clarify that Water Board exemptions to the narrative water quality objective for turbidity are not available for recreation-access elements (e.g., bridge at mouth of the Upper Truckee River). The Final EIR/EIS should also fully delineate all wetlands, SEZs, and any non-SEZ 100-year floodplain areas to aid in use of the document to grant exemptions to applicable prohibitions.** AO5-1

b. Avoid, Minimize, and Mitigate Impacts

The Stream Environment Zone (SEZ) impacts and impacts to all wetlands within those SEZs must be minimized to the extent feasible given the restoration and other goals. The Project must avoid and minimize impacts to the wetlands, 100-year floodplain and SEZ, including from haul routes. Heavy equipment should not be used or transported in any wetlands, including montane meadows, willow scrub wet meadow, or open waters, unless there is no reasonable alternative (e.g., pursuant to Clean Water Act section 404(b)(1) requirements for least-damaging alternatives). AO5-2

PETER C. PUMPHREY, CHAIR | PATTY Z. KOUYOUMDJIAN, EXECUTIVE OFFICER

2501 Lake Tahoe Blvd., So. Lake Tahoe, CA 96150 | www.waterboards.ca.gov/lahontan

RECYCLED PAPER

c. Monitoring Plan

Monitoring will be necessary under Water Board permits. California Rapid Assessment Method (CRAM) and stream invertebrate bioassessment should be two of the monitoring methods considered for the project. Pre- and post-project wetland delineations should also be incorporated into the proposed monitoring plans. A draft mitigation monitoring plan should be included for in the Final EIR/EIS, together with cost estimates for long-term monitoring that are absent in the Appendix E. AO5-3

II. General Comments

As noted in comment I.a., above, exceptions to turbidity objectives are not allowed for recreation projects. A detailed assessment of why the impacts at the river mouth are needed, and how they meet prohibition exception criteria (including recreation alternatives), should be included in the Final EIR/EIS. AO5-4

The relative benefits and impacts between alternatives should be analyzed in the Final EIR/EIS. As described in the Draft EIR/EIS Alternative 3 has the minimum number of grade control structures, and relies on natural geomorphic processes. This alternative also tends to avoid or minimize many of the potential impacts due to construction associated with Alternatives 1,2, and 4. In this less highly-engineered approach (Alternative 3), it would be helpful to compare sediment delivery estimates with those derived from the more extensive constructed riparian-system modifications of the other alternatives, both during and following construction. AO5-5

III. Comments on Individual Alternatives

a. Alternative 1 – Bridge at Upper Truckee River Mouth

The Draft EIR/EIS does not adequately analyze the necessity of a bridge for public recreation at this location, and feasible alternatives that would reduce SEZ and wetland encroachments. AO5-6

b. Alternative 3

i. Wetlands surrounding TKPOA Corporation Yard in Study Area:

Impacts to the western-most wetlands from reduced regular inundation (by relocating low-flow channel to the east) were not analyzed. Hydrologic modeling should be provided at various flow scenarios to analyze the effects and impacts to the wetlands and meadows in the western-most area surrounding the TKPOA Corporation Yard. AO5-7

ii. Haul Routes:

Haul route placement, particularly in the marsh interior and in the lower Trout Creek area, was not adequately analyzed. The location of the haul routes must avoid and minimize impacts to wetlands and SEZ to the maximum extent practicable. AO5-8

iii. Trout Creek Bank Stabilization and Grade Control Features - Design

On the lower reaches of Trout Creek (near RS 92+00and RS 66+00 to 95+00) the specific types of materials that will be used are not disclosed and should be. Hardening of banks and grade controls with rock as cited on p. 2-32 is inappropriate in this system where sand and gravel dominates substrate. Access must be addressed for this area in the Final EIR/EIS and must comply with Basin Plan prohibitions and exemption criteria to minimize encroachments. Also, the need for bank protection and grade control in the lower sections of Trout Creek is not sufficiently supported. The Final EIR/EIS should provide results of modeling under various flows to support the need for extensive bank protection in the lower Trout Creek. AO5-9

Thank you for the opportunity to provide comments on this Project. If you have any questions regarding this letter please contact me at (530) 542-5430.

Alan Miller

Alan Miller, P.E.,
Chief, North Basin Regulatory Unit

AEM/adwT: UTR Marsh CEQA comments NBR
File under: new pending Upper Truckee River Marsh Restoration, El Dorado Co.

Letter
AO5
Response

California Regional Water Quality Control Board, Lahontan Region
Alan Miller, P.E., Chief, North Basin Regulatory Unit
April 29, 2013

AO5-1 The commenter suggests describing how specific exemption criteria are satisfied for each project element and states that the exemptions to the narrative water quality objective for turbidity are not available for recreation-access elements.

The Lahontan Regional Water Quality Control Board (Lahontan RWQCB or Water Board) may grant exemptions to water quality prohibitions for restoration projects that are "intended to reduce or mitigate existing sources of soil erosion, water pollution, or impairment of beneficial uses" (Lahontan RWQCB 1995:5.2-1), provided that the project meets six criteria. Exemptions may be granted for certain types of projects in the Stream Environment Zone (SEZ). The circumstances applicable to this project are included in Table 4-2. Exemptions also may be granted for certain types of projects in the 100-year floodplain that meet certain criteria. The types of projects applicable and criteria are provided in Table 4-2. As discussed in Section 1.4.2, "Project Objectives," of this Final EIR/EIS/EIS, two of the primary objectives of the project are to improve water quality through the enhancement of natural physical and biological processes and to design the wetland/urban interface to help provide habitat value and water quality benefits.

The Preferred Alternative includes moderate recreation infrastructure on the west side of the Marsh, similar to existing conditions, and no new infrastructure on the Marsh's east side. Specifically, it includes a partial reroute of the existing public-access trail to Cove East Beach along the restored wetlands, lagoon, and dunes; one new viewpoint and one new observation area; one fishing platform; and development of an interpretive program and installation of additional signage, all on the west side of the Marsh. Recreation design features would focus recreation activities in certain areas, consistent with the purpose of land acquisitions by the State. As discussed in Section 3.9, "Geomorphology and Water Quality," of the 2013 Draft EIR/EIS/EIS, construction of recreation features could have the potential to increase transport of sediment and other pollutants to surface water bodies during construction, and increased hard surfaces could increase or concentrate runoff. The Conservancy would implement Environmental Commitments 5 and 6 to address short-term water quality impacts. In addition, the final project design would include permanent stormwater detention features or infiltration systems for runoff from any hard surfaces (Environmental Commitment 11, "Incorporate Effective Permanent Stormwater Best Management Practices"). Therefore, it is expected that with implementation of the construction BMPs and the Conservancy's commitments, exceedance of the water quality standard for turbidity established in the *Water Quality Control Plan for the Lahontan Region* (Basin Plan) is unlikely to result from the recreation features included in the Preferred Alternative.

The restoration elements of the Preferred Alternative, however, may not meet the discharge prohibitions during certain construction activities (i.e., activating the new channel), for which the Conservancy would request an exemption. These prohibitions include discharges that do not meet water quality objectives, specifically the turbidity standard, and development within the 100-year floodplain and SEZ. Nearly all of the study area is in the existing 100-year floodplain, except the uplands adjacent to the Highland Woods subdivision, between Cove East Beach and the Sailing Lagoon, and along the margins of the Tahoe Keys Marina (Exhibit 3.8-14 as shown in Chapter 5, "Revisions to the Draft EIR/EIS/EIS"). Construction activities for the restoration elements along

the Upper Truckee River, Trout Creek, Tahoe Keys Marina, and near the shoreline of Lake Tahoe pose short-term risks to water quality, including increased turbidity and accidental releases of hazardous materials or other pollutants. Stream segments with streambank work (locations with biotechnical treatments, revegetation, the pilot channel, and some backfilled channel sections) could be vulnerable to erosion if an unusually high river flow were to occur in the few first years after construction, and may result in a short-term exceedance of the turbidity standard.

AO5-2 The commenter requests that wetlands, SEZ, and other 100-year floodplain boundaries be indicated to assist in determining the suitability of Water Board exemptions. The commenter describes permitting requirements and restrictions required to avoid, minimize, and mitigate impacts on SEZs, wetlands, and the 100-year floodplain.

To assist the commenter with preliminary considerations regarding eventual permit requirements for the Preferred Alternative, the locations of the Federal Emergency Management Agency 100-year floodplain, TRPA SEZs, and potential jurisdictional wetlands are overlain on the conceptual drawings of the Preferred Alternative in Exhibit 4-1 of this Final EIR/EIS/EIS. Additionally, final design development would be completed in close coordination with the Lahontan RWQCB to integrate options or adjustments that reduce impacts and/or meet exemption criteria.

A05-3 The commenter suggests that California Rapid Assessment Monitoring and bioassessment monitoring be considered for the project and recommends that pre- and post-project wetland delineations be included in monitoring plans. The commenter requests that a draft mitigation monitoring plan be included in the Final EIR/EIS/EIS.

As described in Section 2.3, “Monitoring,” of this Final EIR/EIS/EIS, a monitoring framework has been developed for this and other restoration projects in the Upper Truckee River, which includes project specific monitoring. Baseline and post-construction monitoring would include qualitative and quantitative surveys of numerous geomorphic, biological, and vegetation variables, as outlined in Section 2.3.

See response to Comment A04-3 for information on the wetland delineation.

A05-4 The commenter requests additional justification for impacts at the river mouth for recreational features, in light of the Water Board’s prohibition exemption criteria.

As discussed above in response to Comment A01-1, the Preferred Alternative does not include impacts at the river mouth because recreation elements that could cause substantial impacts (construction-related or long-term) near the mouth have not been included. The Conservancy anticipates that it would request exemptions to the turbidity objectives related to the project’s restoration design elements, not the recreation elements.

A05-5 The commenter requests that the relative benefits and impacts of alternatives be analyzed; notes that Alternative 3 relies on natural processes and has fewer engineered structures; and recommends that sediment delivery be compared.

The Conservancy conducted a two-step process for recommending alternative components to be brought forward into the Preferred Alternative in this Final EIR/EIS/EIS, based on three criteria: Benefits; Responsiveness to Public Comments; and Overall Feasibility. (See additional description of this process in Chapter 2 of this Final EIR/EIS/EIS.) The relative benefits, including natural geomorphic processes, and the relative impacts, including sediment delivery, were considered in selecting Alternative 3 as the basis for the restoration element of the Preferred Alternative.

Table 4-2
Summary of the Ability of the Preferred Alternative to Meet Lahontan Regional Water Quality Control Board Exemption Criteria

Potential Prohibition Exemption	Preferred Alternative
Waste Discharge	
Will eliminate, reduce, or mitigating sources of soil erosion, water pollution, and/or impairment of beneficial uses or water.	The proposed project is necessary for environmental protection because it is designed to, in part, reduce streambank and streambed erosion and enhance sediment retention in the floodplain, thereby reducing sediment from discharging directly into Lake Tahoe. The Preferred Alternative includes engineered restoration elements that would restore the river channel and its connection to the broader floodplain and distributary channels in the central portion of the study area.
There is no feasible alternative to the project that would comply with the provisions in the Basin Plan.	All the alternatives considered, including the No-Action/No-Project Alternative and those considered but not evaluated, have the potential to exceed Basin Plan water quality standards for turbidity during construction of the restoration elements and immediately after construction until vegetation growth increases. All alternatives considered would have reduced sediment inputs into Lake Tahoe compared to the No-Action/No-Project Alternative. The Preferred Alternative is expected to provide approximately the same level of streambank protection as other action alternatives, while providing the greatest floodplain area and connectivity for potential sediment and adsorbed particulate storage.
Land disturbance will be limited to the absolute minimum necessary to correct or mitigate existing sources of soil erosion, water pollution, and/or impairment of beneficial uses.	Extensive analyses and recent modeling (2D modeling included in the Final EIS/EIS/EIS) have been conducted to identify the most problematic sediment source areas, and to optimize location and extent of treatment actions versus passive measures to address these issues as well as meet the other project objectives.
All applicable BMPs and mitigation measures have been incorporated into the project to minimize soil erosion, surface runoff, and other potential adverse impacts to the environment.	Numerous avoidance, minimization, and mitigation measures have been incorporated into the Preferred Alternative that would reduce the potential for violations to the discharge prohibitions to the extent feasible. BMPs would be employed in the study area at all times and throughout construction. The Conservancy would make a number of commitments that would minimize risks to water quality, including Environmental Commitments 5, 6, and 11. In addition, Mitigation Measure 3.9-2 requires implementation of an adaptive management plan that commits to actions that would prevent short-term water quality problems from becoming chronic, long-term water quality issues. Exact erosion control measures (i.e., BMPs) and their performance standards have not yet been specified. However, general BMPs would include the use of construction fencing, silt fences, straw bales, temporary settling basins, vegetation protection, hydroseeding, and straw mulch to assure protection of water quality. To the extent feasible, these water quality protection measures would be designed to be redundant so that if one means of protection were to fail, a backup would be in place.
Project complies with all applicable laws, regulations, plans, and policies. Additional exception criteria apply to restoration projects proposed in the Lake Tahoe Basin. To the extent that they are more stringent, the Lake Tahoe Basin criteria supersede the regionwide criteria.	Environmental Commitment 6 would ensure that the Conservancy would obtain and comply with all applicable federal, State, regional, and local permits.
New Development and Disturbance in the SEZ[1]	
For erosion control projects, habitat restoration projects, wetland rehabilitation projects, SEZ restoration projects, and similar projects:	
Criteria (all must be met)	
The project, program, or facility is necessary for environmental protection.	Two of the primary objectives of the project are to improve water quality through the enhancement of natural physical and biological processes and to design the wetland/urban interface to help provide habitat value and water quality benefits. Restoration of channel and floodplain connectivity and function within this reach of the Upper Truckee River, and reconnection of the river lagoon system, are critical elements to protect and improve the water quality discharged to Lake Tahoe from its largest tributary basin.
There is no reasonable alternative, including relocation, which avoids or reduces the extent of encroachment in the Stream Environment Zone.	By its nature, the project must work within the channel and 100-year floodplain to rehabilitate areas that have been directly modified and compensate to restore more natural conditions and processes. Environmental Commitment 5 includes measures to limit construction activities in sensitive areas. Specifically, the measure specifies that soil and other loose material should be stored at least 100 feet from the active channel; that overwinter storage of construction materials within this area should be limited; and that staging and haul routes should be designated in existing developed or disturbed areas where feasible, or where not feasible, in the least sensitive natural areas feasible. In addition, construction area boundaries would be flagged.
Impacts are fully mitigated.	Numerous avoidance, minimization, and mitigation measures have been incorporated into the proposed Preferred Alternative that would reduce the potential for violations to the discharge prohibitions to the extent feasible. BMPs would be employed in the study area at all times and throughout construction. The Conservancy is committed to a number of commitments for minimizing risks to water quality, including Environmental Commitments 5, 6, and 11. In addition, Mitigation Measure 3.9-2 requires implementation of an adaptive management plan that commits to actions that would prevent short-term project-related water quality problems from becoming chronic, long-term water quality issues. Exact erosion control measures (i.e., BMPs) and their performance standards have not yet been specified. However, general BMPs would include the use of construction fencing, silt fences, straw bales, temporary settling basins, vegetation protection, hydroseeding, and straw mulch to assure protection of water quality. To the extent feasible, these water quality protection measures would be designed to be redundant so that if one means of protection were to fail, a backup would be in place.
Discharge in the 100-Year Floodplain in Cases Where Also Not a SEZ[1]	
For erosion control projects, habitat restoration projects, SEZ restoration projects, and similar projects, provided that the project is necessary for environmental protection and there is no reasonable alternative which avoids or reduces the extent of encroachment in the floodplain.	The engineered restoration elements in the Preferred Alternative, including the channel construction, streambank and streambed stabilization treatments, and lowering of the terrace surfaces, are designed specifically to address the degraded floodplain and SEZ conditions to improve water quality over the long term and to improve conditions compared to the existing conditions. Nearly all of the study area is in the 100-year floodplain, except the uplands adjacent to the Highland Woods subdivision between Cove East Beach and the Sailing Lagoon, and along the margins of the Tahoe Keys Marina (Exhibit 3.8-14 as shown in Chapter 5, “Revisions to the Draft EIR/EIS/EIS”). The Upper Truckee River and Trout Creek channels, adjacent areas, and the shared floodplain in the central meadow are the designated floodway. Therefore, the project would require work within the 100-year floodplain and SEZ.

Potential Prohibition Exemption	Preferred Alternative
Projects solely intended to reduce or mitigate existing sources or erosion or water pollution or to restore the functional value to previously disturbed floodplain areas.	The engineering restoration elements in the Preferred Alternative, including the channel construction, streambank stabilization treatments, and lowering of the channel, are designed specifically to address the degraded floodplain and SEZ conditions in the study area to improve water quality over the long term and to improve conditions compared to the existing conditions, and therefore require work within the 100-year floodplain and SEZ.
Projects necessary for public recreation.	The Preferred Alternative includes elements that would provide recreation benefits, with minimal adverse impacts, compared to existing conditions.
Projects that would provide outdoor public recreation within portions of the 100-year floodplain that have been substantially altered by grading and/or filling activities which occurred prior to June 26, 1975.	The Preferred Alternative would enhance the recreational experience and opportunities focused on the lower west side and Cove East portions of the site, which were degraded by fill and grading actions before June 26, 1975.
Criteria (all must be met)	
Project is included in one of the categories above.	Yes.
No reasonable alternative to locating the project or portions of the project within the 100-year floodplain. No reasonable alternative to locating the project or portions of the project within the 100-year floodplain. The project, by its nature, must be located within the 100-year floodplain.	The goal of the project is to restore the channel and 100-year floodplain to a more natural condition and by its nature must occur within the 100-year floodplain.
Project incorporates measures which will ensure that any erosion or surface runoff problems caused by the project are mitigated to levels of insignificance.	Numerous avoidance, minimization, and mitigation measures have been incorporated into the proposed Preferred Alternative that would reduce the potential for violations to the discharge prohibitions to the extent feasible. BMPs would be employed in the study area at all times and throughout construction. The Conservancy is committed to a number of commitments for minimizing risks to water quality, including Environmental Commitments 5, 6, and 11. In addition, Mitigation Measure 3.9-2 requires implementation of an adaptive management plan that commits to actions that would prevent short-term project-related water quality problems from becoming chronic, long-term water quality issues. Exact erosion control measures (i.e., BMPs) and their performance standards have not yet been specified. However, general BMPs would include the use of construction fencing, silt fences, straw bales, temporary settling basins, vegetation protection, hydroseeding, and straw mulch to assure protection of water quality. To the extent feasible, these water quality protection measures would be designed to be redundant so that if one means of protection were to fail, a backup would be in place.
The project will not, individually or cumulatively with other projects, directly or indirectly, degrade water quality or impair beneficial uses of water.	Two of the primary objectives of the project are to improve water quality through the enhancement of natural physical and biological processes and to design the wetland/urban interface to help provide habitat value and water quality benefits. The project would improve water quality and beneficial uses of waters associated with other projects.
The project will not reduce the flood flow attenuation capacity, the surface flow treatment capacity, or the ground water flow treatment capacity from existing conditions. This shall be ensured by restoration of previously disturbed areas within the 100-year floodplain within the project site, or by enlargement of the floodplain within or as close as practical to the project site. The restored, new or enlarged floodplains shall be of sufficient area, volume, and wetland value to more than offset the flood flow attenuation capacity, surface flow treatment capacity, and ground water flow treatment capacity lost by construction of the project.	The proposed Preferred Alternative would increase the area of the marsh that would be inundated during small (2-year) and moderate (5- and 10-year) flow events, increasing the potential for sediment and adsorbed particulate retention and long-term storage within the floodplain. However, it would not reduce the conveyance capacity for large (25-year) or major (100-year) floods. See Section 3.1.1, “Flooding and Flood Hazards,” in Chapter 3, “Master Responses,” of this Final EIR/EIS/EIS.

Notes:

2D = two-dimensional; Basin Plan = *Water Quality Control Plan for the Lahontan Region*; BMP = best management practice; Conservancy = California Tahoe Conservancy; Final EIR/EIS/EIS = Final environmental impact report/environmental impact statement/environmental impact statement; SEZ = Stream Environment Zone

[1] Applicable to this project.

Source: Data compiled by Cardno in 2015

A05-6 The commenter states that the Draft EIR/EIS/EIS does not adequately analyze the necessity of a bridge for public recreation in Alternative 1 and feasible alternatives that would reduce SEZ and wetland encroachment.

Alternative 1, "Maximum Recreation," included the proposed bridge for public recreation, while Alternatives 2–4 analyzed in the 2013 Draft EIR/EIS/EIS included recreation features with varied SEZ and wetlands footprints. The Preferred Alternative would limit encroachment on SEZ and wetlands because it does not include the bridge at the mouth or additional recreation infrastructure on the east side of the marsh. Recreation access on the west side of the marsh would be minimal and focus recreation in designated areas along trails on the upland edge. See additional information of the selection process in Chapter 2 of this Final EIR/EIS/EIS.

A05-7 The commenter requests hydrologic modeling of potential effects of low-flow channel relocation on wetlands near the western edge of the study area near the Tahoe Keys Property Owners Association (TKPOA) Corporation Yard under Alternative 3.

Wetlands near the western edge of the study area near the TKPOA Corporation Yard are isolated from regular surface water inundation via overbanking of the Upper Truckee River under existing conditions (because the river does not overtop its banks in this reach until flows exceed about the 5-year event). Existing wetlands in this vicinity likely receive their dominant hydrologic support from a combination of local surface runoff (and seasonal on-site snowpack melt) and groundwater support. Relocating the low-flow channel of the Upper Truckee River would not adversely modify the normal hydrologic support to these wetlands: the frequency of overbank flows reaching this area would not be decreased relative to existing conditions and groundwater support may be improved, because the partially backfilled channel would reduce groundwater losses to the existing incised streambed during low-flow periods.

AO5-8 The commenter requests additional consideration of haul route alignments relative to impacts on wetlands and SEZ under Alternative 3, in particular for the Trout Creek bed and bank protection features.

The haul routes and staging areas for the Preferred Alternative, which incorporates restoration elements of Alternative 3, are shown in Exhibit 2-2, "Preferred Alternative—Storage/Staging and Access Plan," of this Final EIR/EIS/EIS. As outlined in Environmental Commitment 5, the Conservancy is committed to designating staging areas and hauling areas to existing developed or disturbed areas, or where not feasible, in the least sensitive natural-habitat areas. Haul route alignments are determined based on consideration of potential impacts on sensitive resources, restricting the extent of internal access roads to the minimum likely required and fewest stream crossings. In response to comments on the 2013 Draft EIR/EIS/EIS, access points, storage/staging areas, and internal haul route options have been modified to specifically confirm that storage areas are not in wetlands and have limited physical flood hazards. (That is, these areas are outside the existing 100-year floodplain based on the updated, detailed two-dimensional [2D] hydraulic modeling discussed in Section 3.1.1, "Flooding and Flood Hazards," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS.) Additionally, some of the access points and possible routes along public roads were adjusted to respond to public comment about traffic and neighborhood concerns. (See Section 3.3.4, "Traffic, Access, and Staging," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS.) Therefore, the internal haul routes required adjustments to ensure that all potential work areas could be reached, including the lower Trout Creek stabilization locations. The storage, staging, and access locations for the Preferred Alternative as depicted in Exhibit 2-2 of this Final EIR/EIS/EIS represent the worst-case possibilities, because Final design adjustments and permitting could further modify them to avoid or minimize wetland or SEZ impacts.

A05-9 The commenter requests clarification about the types of potential bed and bank stabilization treatments for lower Trout Creek and requests additional modeling to support the protection locations and treatment types under Alternative 3.

The detailed topographic information used to build the 2D hydraulic model (bed and bank profiles) and 2D modeling results for the 10- and 100-year flood events (water depths and velocity vectors) provide information about the bed profile slopes (showing the existing bed knickpoints in this previously degraded channel) and water surface gradients under moderate to large flood events (showing worst-case stress). These data were used to create the worst-case envelope polygon for potential bank and bed treatments for lower Trout Creek in the project schematics (Appendix A). The exact mixture of bed and bank treatments required to prevent project-related destabilization of the Trout Creek channel will be determined during additional modeling and final design analyses to avoid over-design and to meet permit requirements for materials, and treatment measures. However, to provide better information about the likely types of bed and bank treatments, representative details for buried boulder grade controls and biotechnical bank stabilizations with plantings have been included in the Preferred Alternative's schematic plans (Appendix A).

Letter AO6

CALIFORNIA
Water Boards

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Lahontan Regional Water Quality Control Board

April 26, 2013

California Tahoe Conservancy
Attn: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT FOR THE UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT (SCH# 2007032099), EL DORADO COUNTY

Thank you for the opportunity to provide comments on the Draft Environmental Impact Report/Environmental Impact Statement (Draft EIR/EIS) for the Upper Truckee River and Marsh Restoration Project (Project). The proposed project is located in South Lake Tahoe along the most downstream reach of the Upper Truckee River. The Draft EIR/EIS evaluates four action alternatives and a no-action alternative to restore natural geomorphic processes and ecological functions along the Upper Truckee River while providing recreation access.

State law assigns responsibility for protection of water quality within the Lahontan watershed basin to the California Regional Water Quality Control Board-Lahontan Region (Water Board). The Water Board implements and enforces the Porter-Cologne Water Quality Control Act (California Water Code § 13000 et seq.) and the *Water Quality Control Plan for the Lahontan Region* (Basin Plan). The Water Board is a responsible agency under the California Environmental Quality Act (CEQA) for the Project and will need an adequate CEQA document as the basis for issuing Clean Water Action section 401 water quality certification, Basin Plan prohibition exemptions, and/or waste discharge requirements. AO6-1

During September, 2006, Water Board staff provided comments on the Notice of Preparation of the Draft EIR/EIS, and those comments have been incorporated into this final draft.

Water Board staff has reviewed the information provided in the Draft EIR/EIS in context to the proposed Project's potential impacts to water quality and beneficial uses of waters of the State. Overall, Water Board staff support the effort to restore the Project area. The Draft EIR/EIS generally provides a thorough and adequate analysis of the potential Project impacts; however Water Board staff has the following comments:

PETER C. PUMPHREY, CHAIR | PATTY Z. KOUYOUMDJIAN, EXECUTIVE OFFICER

2501 Lake Tahoe Blvd., So. Lake Tahoe, CA 96150 | www.waterboards.ca.gov/lahontan

RECYCLED PAPER

I. Regulatory requirements

a. Basin Plan Prohibition Exemptions

Although Basin Plan prohibitions are summarized in Tables 3.9-1 and 3.9-3 and discussed in Section 5.2.8, the Draft EIR/EIS does not adequately describe the process for obtaining exemptions. Project-specific findings, as described in the Basin Plan, must be made for each exemption that is requested by a project proponent. In the Draft EIR/EIS Section 5.2.8, the end of the second paragraph implies that the Water Board has granted a blanket exemption to allow for elevated turbidity during all stream restoration projects in the Tahoe Basin. This statement is incorrect and misleading. For a number of stream restoration projects, the Water Board has granted exemptions to the narrative water quality objective for turbidity, with limited magnitude, duration, and extent, for specific activities related to the installation of each individual project. For this project, the Water Board would be required to take a separate discretionary action to grant a prohibition exemption and that can be done as part of the Water Board permitting process. AO6-2

b. Avoid, Minimize, and Mitigate Impacts

Although extensive mitigation measures are proposed in the Draft EIR/EIS, the Project proponents will need to demonstrate how the preferred alternative avoids and minimizes the Stream Environment Zone (SEZ) impacts. All of the action alternatives have significant construction-related impacts to the SEZs, including installation and removal of access roads, stream crossings, and dewatering and diversion. The Project must show that it has avoided and minimized impacts to the floodplain and SEZ to the extent practical. The criteria to avoid, minimize, and mitigate impacts needs to be considered when planning implementation of the Project, especially with regard to placement and extent of internal access roads and stream crossings. Alternatives 1 and 2 (Exhibits 2-5 to 2-8 Staging and Access Plans) have multiple temporary stream crossings and extensive haul routes within the project area. AO6-3

c. Monitoring Plan

Section 2.5 describes a monitoring plan that was developed for the Project, but the plan itself does not appear to be part of the Draft EIR/EIS. Developing a thorough monitoring plan will be necessary for obtaining required Water Board permits. The Project proponents may want to consider using the California Rapid Assessment Method (CRAM) as a monitoring tool for the Project. A draft monitoring plan should be included for public review in the Final EIR/EIS. AO6-4

II. General Comments

a. River Mouth Modification

Implementing Upper Truckee River mouth modifications proposed in Alternatives 1, 2, and 3 will be very challenging and will require significant dewatering and diversion installations. The Draft EIR/EIS acknowledges potentially significant and unavoidable impacts related to water quality and attainment of the turbidity water quality objective and Rec-2 (visual) beneficial use. All potentially significant, unavoidable impacts must be accompanied with a Statement of Overriding Considerations and supporting narrative. AO6-5

b. Recreational Boating Access

The DEIS lacks an adequate assessment of the potential impacts associated with recreational boating access. Draft EIR/EIS page 2-32 notes that river users often use the point near East Venice Drive to access and take out boats. The Draft EIR/EIS should also include a discussion of access and use at the pedestrian bridge near Highway 50. Both sides of the river in the area near the pedestrian bridge are also used seasonally by recreationalists to put in and take out watercraft. In Alternative 3, access at the pedestrian bridge at US 50 is likely to increase significantly and provisions for boater access must be added. If recreation access is not planned for in this area, user created trails and erosion and trampling of bank protection measures are likely to occur. Public use habits are very difficult to change and boaters will likely continue to use the access points at the pedestrian bridge. AO6-6

c. Potential Water Quality Benefit

Although all of the action alternatives (Alternatives 1-4) have risks and uncertainties related to short term water quality impacts and long term effectiveness, the no action alternative (Alternative 5) has documented negative impacts to water quality. As described in the Draft EIR/EIS Alternative 3 appears to have the greatest potential to benefit water quality given that it has the largest increase in expected floodplain inundation (156 acres) at the 2 year recurrence interval flow. This alternative comes closest to simulating conditions in the marsh prior to the development of the Tahoe Keys and to restoration of natural marsh function. AO6-7

III. Comments on Individual Alternatives

a. Alternative 1 – Bridge at Upper Truckee River Mouth

The Draft EIR/EIS does not adequately analyze the potential long term impacts of locating a bridge at the mouth of the river. Impact 3.13-5, Long-Term Operation and Expansion of Recreation Facilities That May Have an Adverse Physical Effect on the Environment, should include a discussion of bridge impacts. The Draft EIR/EIS page 3.9-16 notes that the historic width of the AO6-8

mouth has ranged from 50 feet to 250 feet wide. Historic changes in the width of the river mouth demonstrate how barrier beaches such as Barton Beach are dynamic systems. Installation of a bridge could hinder natural river mouth processes and have long term detrimental effects on both the beach and river mouth. The analysis should include a discussion of these issues. AO6-8 cont.

The Water Board has the authority to grant exemptions to certain prohibitions if specific findings are made as detailed in the Basin Plan. Basin Plan Discharge Prohibitions are discussed in Tables 3.9-1 and 3.9-3 and the Draft EIR/EIS acknowledges that exemptions to several prohibitions may be required to implement the Project.

b. Alternative 3

i. Trout Creek Bank Stabilization and Grade Control Features - Design

Several locations in the Draft EIR/EIS discuss conducting bank stabilization and vertical grade control on the lower reaches of Trout Creek (near RS 92+00, per Table 2-3 and between RS 66+00 to 95+00 per page2-25). The grade control and stabilization for this area is mapped differently than similar features on this and other alternatives (Exhibits 2-1 to 2-4), yet little detail is provided to describe why the mapping is different. The analysis should describe if and how they will differ from what is proposed at other locations. The description needs to include information explaining how the bank stabilization and grade control features will be installed.

AO6-9

ii. Trout Creek Bank Stabilization and Grade Control Features- Access

The location of the proposed vertical grade control structures is one of the wettest parts of the project area with limited access and saturated soils, yet there is no explanation how this area will be accessed to implement the proposed changes. All vertical grade control structures are accessible by proposed haul routes except this area. In addition, Exhibit 2-7 shows no temporary river crossings to access this area.

iii. Proposed Mitigation for Impact 3.9-4

Since the proposed mitigation of adaptive management may be difficult to implement given the limited access to this part of the Project area, please explain the feasibility of implementing the proposed adaptive management.

iv. Alternative 3, Impact 3.9-7

The analysis needs to include a discussion of the potential for the 34,815 cubic yards of material described in Impact 3.9-2 (Alt. 3) to influence beach dynamics/replenishment issues. AO6-10

Alternative 4 - Impact 3.9-5

Sections 3.9-5 (Alt. 4) and 3.9-6 (Alt. 4) contain contradictory information. Impact 3.9-5 (Alt. 4) states "Implementing Alternative 4 would not raise the streambed or decrease the channel capacity". However, Impact 3.9-6 (Alt. 4) states "The alternative also proposes modifications to the channel between RS 67+00 and RS 93+00 that would decrease channel capacity. The proposed channel design would increase the frequency of overbanking..." The text should be revised to clarify the impacts of Alternative 4. AO6-11

Thank you for the opportunity to provide comments on this Project. If you have any questions regarding this letter please contact me at lscribe@waterboards.ca.gov or (530) 542-5465.

For

Laurie Scribe
Environmental Scientist

LS/adw/T: UTR Marsh CEQA comments
File under: new pending Upper Truckee River Marsh Restoration, El Dorado Co.

Letter
AO6
Response

California Regional Water Quality Control Board, Lahontan Region
Laurie Scribe, Environmental Scientist
April 26, 2013

AO6-1 The commenter discusses the role of the Water Board as a responsible agency and states that the 2013 Draft EIR/EIS/EIS generally provides a thorough and adequate analysis of potential project impacts.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

AO6-2 The commenter requests additional details and corrections regarding Water Board findings and exemption process discussed in Section 5.2.8.

The Conservancy would apply for exceptions as part of the Lahontan RWQCB's permitting process. Please see response to Comment A05-1 for the list of current exemptions and supporting information that Conservancy currently identifies as applicable to this project, focused on the exemptions and criteria relevant to the Preferred Alternative.

See Chapter 5, "Revisions to the Draft EIR/EIS/EIS, Section 5.2.8" for corrections.

A06-3 The commenter requests that the final document demonstrate how the Preferred Alternative avoids and minimizes SEZ impacts, including temporary impacts.

Impacts on SEZs, including jurisdictional wetlands, riparian vegetation, and SEZ, are evaluated in Section 3.4.2 in Section 3.4, "Biological Resources: Vegetation and Wildlife," of the Draft EIR/EIS/EIS. The Preferred Alternative limits the number of stream crossings and haul routes that have been selected to occur immediately adjacent to construction areas. Access points and staging areas have been identified, in part, to minimize construction activities and hauling within sensitive habitats (see Section 3.1.2, "Traffic, Access, and Staging," in Chapter 3, "Master Responses," and see Exhibit 2-2 of this Final EIR/EIS/EIS). Activities must occur within the floodplain, SEZ, and some areas of wetland and riparian vegetation to accomplish the restoration efforts, but disturbance would be limited to areas necessarily in the footprint and essential for access.

The Conservancy would implement Environmental Commitments 5 and 6. These environmental commitments include numerous measures to protect and reduce disturbance to floodplain, SEZ, and wetland and riparian vegetation, and a suite of BMPs to reduce potential impacts during construction activities, including limiting construction activities to only areas that are necessary.

See responses to Comments A05-1 and A05-2 for additional information.

AO6-4 The commenter refers to Section 2.3, "Monitoring," and states that the plan should be included in the Final EIR/EIS/EIS and that the Conservancy may want to consider using the California Rapid Assessment Method (i.e., CRAM) as a monitoring tool.

Please see response to Comment AO5-3.

AO6-5 The commenter discusses significant unavoidable water quality impacts associated with diversion and dewatering proposed at the mouth of the Truckee River under Alternatives 1, 2, and 3 and states that a statement of overriding considerations and supporting narrative must be provided.

The Conservancy would complete a statement of overriding considerations for the Preferred Alternative.

See response to Comment A05-1 for additional information on water quality impacts.

AO6-6 The commenter states potential impacts associated with recreational boating access and boat take-outs proposed under Alternative 3 (and the Preferred Alternative) need to be discussed further.

In the Draft EIR/EIS/EIS, Impact 3.13-6 (Alt. 3), "Long-Term Decrease or Loss of Public Access and Recreation Opportunities within Lakes, Waterways, or Public Lands," explains that the ability of nonmotorized watercraft to travel into and through the study area would change because of the new distributary channel design. The intent and purpose of Alternative 3 is to take the flows of the Upper Truckee River and spread them over the study area. The dispersed flows would change the timing when boats could access the study area. It is possible that this change would reduce the amount of time that the study area could be accessed compared to existing conditions in some areas; however, access may increase where the project actions lower bank heights. Although the timing of boat access to the study area would change, boating access would not be precluded.

For project-related erosion issues, the Conservancy would implement Environmental Commitments 5, 8, and 11, which include construction and post-construction BMPs and preparation of a geotechnical engineering report with implementation of all applicable recommendations to prevent project-related erosion and address soil and slope stability. The Conservancy would ensure that the final design incorporates effective permanent BMPs for the protection of water quality and would conform with all applicable ordinances and standard conditions established by TRPA and the Lahontan RWQCB.

As part of ongoing management of the study area through a land steward, the Conservancy would continue to adaptively manage any erosion or vegetation trampling associated with new use patterns developed by boaters using the study area. Furthermore, the Conservancy conducts outreach to educate visitors regarding the importance of resource protection and to discourage incompatible uses. The Conservancy also monitors recreational use and compliance with Conservancy use policies and CSLT ordinances and would address erosion and trampling of bank protection measures if needed.

AO6-7 The commenter discusses potential water quality impacts under Alternative 5 (No Action) and states that Alternative 3 (and the Preferred Alternative) restoration approach has the greatest potential to benefit water quality and simulate conditions prior to development of the Tahoe Keys.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

AO6-8 The commenter states that Impact 3.13-5, "Long-Term Operation and Expansion of Recreation Facilities That May Have an Adverse Physical Effect on the Environment," does not adequately analyze the potential long-term impacts of the proposed pedestrian bridge under Alternative 1. The comment also states that several prohibitions may be required.

See response to Comment AO5-6.

AO6-9 The commenter notes that the text, table, and graphics depicting bed and bank stabilization on lower Trout Creek under Alternative 3 are inconsistent; requests more detailed information about the measures to be installed and the haul routes and/or temporary crossings; and suggests that adaptive management mitigation may be infeasible given limited access to this location.

The text, table, and graphics for the Preferred Alternative have been modified to consistently depict the potential area along lower Trout Creek that could require streambed and streambank stabilization measures. In addition, the staging, storage, and access plan (Exhibit 2-2 of this Final EIR/EIS/EIS) has been updated to reflect the potential need for construction access to this location using the shortest route through sensitive areas. See also response to Comment A05-9. Potential adaptive management needs and measures cannot be readily determined at this time, and although the lower end of Trout Creek is somewhat remote relative to other portions of the site, this is similar to other river and wetland restoration projects that also have long-term adaptive management needs.

AO6-10 The commenter requests additional discussion of the potential effects on beach dynamics/replenishment of the estimated 34,815 cubic yards of material that could be mobilized under Alternative 3.

As discussed in Impact 3.9-5, implementing Alternative 3's restoration element (selected as the basis of the Preferred Alternative) would result in natural geomorphic response after construction of the "pilot" channel. The pilot channel would reactivate remnant channel segments and floodplain swale features in the central portion of the Upper Truckee Marsh under lower magnitude flood events than under existing conditions or the No Action Alternative. Such changes could modify the timing with which sediment or nutrients are released from the site to the river and/or Lake Tahoe, but they would not have significant negative impacts on long-term water quality conditions. Based on existing information and scientific understanding of the marsh's topography, geomorphology, and hydraulics, the remnant channels and swales contain materials dominated by a mixture of fine-textured organics and inorganics, because the accumulations resulted from slow-velocity floodwaters and ponding. Therefore, it is unlikely that many of the materials expected to be present in these locations would be in the coarse sand-size class that is important to beach sediment supply. The volume is just an estimate and the amount of material that would be mobilized is uncertain, but the water quality impact assessment assumed a worst case, dominated by such fines and organics. If the remnant channels and swales actually have more coarse sands than estimated, this would reduce the potential for adverse water quality impacts and increase the possibility that some coarse sediment would be delivered to the nearshore for possible redistribution along the beach system. This would be a potential long-term beneficial result of the floodplain reactivation, but such a result is difficult to predict with certainty. Nonetheless, the possible short-term adverse changes to beach sediment supply are discussed in Impact 3.9-7, so that potential mitigation needs are identified.

AO6-11 The commenter notes potentially contradictory information regarding the effects of Alternative 4 on streambed elevation, capacity, and frequency of overbanking under two separate impacts: Impact 3.9-5 (Alt. 4) and Impact 3.9-6 (Alt. 4).

The discussion in Impact 3.9-5 (Alt. 4) explains that Alternative 4 would not raise the channel bed, increase inundation on the existing terrace surface, or reactivate the remnant channels. However, Impact 3.9-6 (Alt. 4) explains that a low inset floodplain (below the existing terrace) would be excavated that would experience overbanking. These data are not directly contradictory. The first discussion explains that Alternative 4 would not provide better access to the surrounding ground surfaces that extend from the existing top-of-bank areas (i.e., the "terraces"). The second discussion describes how the excavated inset floodplain would create "low banks" and therefore,

allow the river to overflow onto the inset floodplain area during small and moderate streamflow peaks.

Letter AO7

OFFICIAL CORRESPONDENCE BY ELECTRONIC MAIL
NO HARD COPY TO FOLLOW

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Pacific West Regional Office
333 Bush Street, Suite 500
San Francisco, California, 94104-2828

L7619 (PWR)

April 26, 2013

Mr. Scott Carroll
Environmental Planner
California Tahoe Conservancy
1061Third Street
South Lake Tahoe, CA 96150
scarroll@tahoe.ca.gov

Re: *DEC-13\0045 Upper Truckee River and Marsh Restoration Project*

Dear Mr. Carroll:

We have reviewed the Draft Environmental Impact Statement (EIS) for the proposed restoration initiative in the Upper Truckee River watershed. We received no responses from any other office or agency. Our comments are as follows:

1. In addition to educating construction personnel about the possible presence of unknown cultural archeological resources and what to do if such discoveries occur, we recommend that a qualified archaeologist be present to monitor ground disturbing project activities that have the potential to damage or destroy archeological resources.

2. It is noted that a representative of the culturally affiliated Washoe tribe was consulted to review previous study findings, field research, and "environmental commitments designed to reduce potential impacts on cultural resources to less-than-significant levels." We recommend that follow-up consultation be completed to bring the consultation process to a close. AO7-1

For additional information or assistance in addressing these comments in preparing the Final EIS, please contact Mark Rudo, Regional Archeologist, Pacific West Region (415) 263-2361.

Thank you for your consideration.

Sincerely,

/s/ Patricia L. Neubacher
(signed original on file)

Christine S. Lehnertz
Regional Director, Pacific West Region

Cc:
Patricia_Port@ios.doi.gov
Mark_Rudo@nps.gov
waso_eqd_extrev@nps.gov

Letter
AO7
Response

U.S. Department of the Interior, National Park Service
Christine S. Lehnertz, Regional Director, Pacific West Region
April 26, 2013

AO7-1 The commenter suggests having a qualified archaeologist present to monitor ground-disturbing activities that have the potential to damage or destroy archeological resources and to complete follow-up consultation to bring the consultation process to a close.

The Conservancy has consulted with the Washoe Tribe on multiple occasions, including a field visit with representative tribal member Darrel Cruz just before the release of the Draft EIR/EIS/EIS. As described in Chapter 2, "Project Alternatives," of the 2013 Draft EIR/EIS/EIS under Environmental Commitment 2, the Conservancy would prepare a cultural resources protection plan that would include archaeological monitoring of grading in areas with the potential for discovery of significant resources. The Conservancy would continue to coordinate with the Washoe Tribe through development of the cultural resource protection plan and construction to ensure that resources within the Marsh are protected.

Letter AO8

Tahoe Area Sierra Club Group

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

April 6, 2013

Re: Upper Truckee River and Marsh Restoration Project Draft EIR/EIS/EIS

The Sierra Club is pleased to comment on the restoration project for the UTR and Marsh area. The restoration alternative that is of most interest to the Tahoe Area Sierra Club is Alternative 3 which provides the greatest amount of biological restoration in an area sadly deprived of enough water and loss of habitat due to projects such as Tahoe Keys, expansion of the marina, CalTrans fateful bridge widening on Hwy 50, commercial development in the 100-year flood plain, the ever-expanding TKPOA corporation yard, and the interminal incremental fill into the meadow from property owners, governments, and developers. AO8-1

Alternative 3 offers the opportunity for nature to help heal the marsh with the least amount of man-made interference of any of the alternatives. While not perfect, Alternative 3 provides for connecting the river to its floodplain, and capturing the biological and physical processes of the former marsh, with its diverse natural swales, holes, shallow areas, diverse vegetation, high and low lying lands, and, in general, restoring an effectively functioning tapestry of river, meadow and marsh ecosystem.

However, the document itself is not nearly equal to the task of presenting the project and its beneficial and adverse environmental impacts as one would expect for such an exciting project. Our detailed comments begin on the next page. The EIR/EIS/EIS will be referred to throughout these comments as "the document" for ease of writing and reading.

While the importance of the project cannot be completely undermined by a flawed document, the failures are many and it is important to note that, under CEQA Section 15088.5 a document that does not disclose pertinent data, does not accurately reveal the details of the project that have environmental impacts, and uses an amalgam of conflicting maps, contradictory sections, and outdated facts must be re-circulated with all corrections prior to submitting a Final EIR/S/S to the public. Our comments follow.

We look forward to a revised and re-circulated document based on current information.

Very truly yours,

Laurel Ames
Lwames@hotmail.com

SPECIFIC COMMENTS ON THE UPPER TRUCEKE RIVER AND MARSH RESTORATION PROJECT

1 Environmentally Superior Alternative. The document selects Alternative 2 as that alternative. Yet NEPA requires the alternative that causes the least damage to the biological and physical environement, and as the document notes, the alternative that "best protects, preserves, and enhances ……..natural resources."

The selection of Alternative 2 does not meet that criteria, because as the document notes, it was selected due to providing the least amount of recreation facilities. While the document selects "recreation" and its facilities for various alternatives, the title of the document gives no hint that this significant restoration project will include compromises to the restoration on behalf of recreation amenities, those amenities reduce the value of the restoration. Such a trade-off, tucked into a project objective, is a devious way to provide unnecessary amenities in an area that has already been subject to almost every insult imaginable to its ecosystem, and this restoration is limited by many of those insults. Adding more amenities in this study area is particularly galling to then be used as the criteria for selecting the environmentally preferred alternative. AO8-2

The alternative that clearly provides the best bang for the buck in terms of restoration of the marsh, is, in fact, the alternative with the greatest marsh restoration values - - alternative #3. It is to be hoped that the agency will scale back the amount of new amenities it is laying on top of this alternative restoration and focus on the core objective – the greatest amount of natural restoration possible. It is folly to confuse project objectives in an EIR/S/S by adding in compromises that are not necessary to the restoration project.

We urge you to adopt a clean restoration project that will be the most effective.

2. Cumulative Impacts. The document reveals that there are a number of Significant and Unavoidable Impacts, but in reviewing the document there are impacts that have not been found by the preparers, using outdated data, to be Siignificant. Using up-to-date data, not four year old data – these impacts would be Significant but avoidable by a simple policy decision that does not change the restoration project. Issues such as using neighborhoods for construction equipment storage and operations are clearly policy decisions that impact air quality in neighborhoods as well as public health impacts from TAC from diesel engines operating next door to residences for many months at a time. Selection of areas within 6 feet of residences is merely a policy decision that was made with no thought to the environmental impacts, public health impacts and their cumulative effects over the course of five months for four years. Table ES-1 identifies long term impacts from criteria air pollutants and for CO – also a criteria air pollutant – but no mitigation of that impact is proposed. That is not only a serious error, but also one of agency willfulness. AO8-3

A second, and Significant bu Unavoidable Impact is the construction of the maximum recreational facilities in a restoration project on the habitat of an endangered plant, the Tahoe Yellow Cress. While seemingly bizarre to even suggest, in a restoration project, AO8-4

that an endangerd species would be put at risk by substantial amenity construction of bridges and boardwaslk on the habitat, the fact is that it is a simple policy decision to not build in an endangered plant's habitat. "NO feasible mitigation if available" the document says. But that is just ridiculous. Of course there is a feasible mitigation provided to the agency decision-makers - - don't build an unneeded amenity. AO8-4 cont.

We urge you to adopt a clean restoration project that will be the most effective in restoring the marsh, the river, the meadows, and the 100-yr flood plain.

3. Conflicting Information Provided in Document The issue of conflicting information is found throughout the document. Parts that are based on scoping in 2006 appear in some places, while it appears that section 3 in volume I and 2 (Affected Environment and Environmental Consequences)was written in approximately 2008, while the second section – Project Alternatives - - was written in the recent past.

AO8-5

For example, the maps aren't consistent. Exhibits 2-6 to 2-9 on pages 2- 3 to 2-7 provide different details as to construction elements, placement of bank stabilization, etc, which is different from the maps on pages 2-45 to 2-50 which have Exhibits 2-5 to 2-8.

And, in line with that inconsistency, there is a difference between the descriptions in Section 2 and in Section 3.

4. Environmental Commitments. The commitments are generally just repeats of TRPA and local codes, and often have nothing to do with commitments to specifically reducing adverse impacts on the resources that are being "managed", or the impacts on the nearest neighborhoods. In fact, one neighborhood, with the greatest number of houses closest to the construction work is not even mentioned in Section 3.

For example, EC 6 provides comfort that the project will conform with "all permits required by applicable federal, state, regional, and local statutes and regulations." While expected, its not clear what or why that statement is needed as an environmental commitment in the Tahoe basin. But thanks for letting us know – one less thing to worry about.

AO8-6

The commitments that the public and especially the neighborhoods bordering the project want are those that protect the residents from unnecessary truck traffic, noise, pollutants, vibrations, and dangers to their children and dogs.

Further, the air quality section seems to be written to excuse the use of large pollutant-emitting equipment in residential neighborhoods. Pages and pages apply to annual averages, attaiinment in place of the actual transitional status for ozone, and more. At no time does an environmental commitment offer to use less polluting equipment, smaller pieces of equipment, haul routes on major thoroughfares such as Keys Blvd and East Venice vs, narrow neighborhood streets in the surrounding neighborhoods. The fact that the document selects Cailfornia Ave, a nearly half-mile narrow street fronted by more

than 35 houses in its short stretch, vs Eloise, on which the agency owns an acre parcel suitable for storage and equipment, with an immediate connection at the edge of the commercial area into the southern part of the meadow is not discussed.

5. Key Environmental Impacts (ES.4). This bullet is the only actual admission in the document that there is a "potential for noise and scenic impacts to nearby residences" but even here the document fails miserably to mention the significant impacts on residences immediately adjacent to haul routes and surrounded by equipment and material storage sites. AO8-6 cont.

The stance of the agency as to the local residents seems to be captured by the sentence "All of the reseindtial subdivisions have access points leading into the study area. Some of these access points and traails are established and recognized by the Conservancy while others are user created". Yes, and they were created long before Dillingham started digging up the marsh, and decades before the Conservancy arrived. Such a blindingly obtuse statement is wildly inappropriate and quite insensitive to the residents.

6. Initial Cost Analysis. In these days of limited budgets, the fact that the analysis highlights the low cost of Alternative 3 at $5.9 million, vs the highest cost for Alternative 4, must be given great weight by the agency's board. The fact that the least destructive, and most beneficial project for restoring the marsh, the river and the meadow is the least expensive is a definite plus for Alternative 3. The biggest ban for the buck. This cost analysis should also be performed in today's dollars and all alternatives should be costed out at restoration costs, with the amenity costs shown separately. AO8-7

Thank you for the opportunity to comment. The Tahoe Area Sierra Club would be glad to meet with you and discuss our comments. We look forward to a robust and science-based response in the Response to comments. However, our advice to you to reconsider and re-circulate a document that is re-done in terms of updated information as of 2012 as compared to 2006, is needed for proper public disclosure. AO8-8

Laurel Ames
Tahoe Area Sierra Club
laurel@watershednetwork.org

Jennifer Quashnick
Tahoe Area Sierra Club
jqtahoe@sbcglobal.net

Letter
AO8
Response

Sierra Club, Tahoe Area Sierra Club Group
Laurel Ames
April 6, 2013

AO8-1 The commenter states their support for Alternative 3; however, the commenter also states that the environmental document is inadequate and contradictory.

More specific reasonings associated with this comment are presented in responses to Comments AO8-3 through AO8- 8.

AO8-2 The commenter believes that the Environmentally Superior Alternative is Alternative 3, that recreation-access objectives should not be considered along with restoration objectives when making this finding, and that compromises were made by considering both.

As described in Section 4.5, "Environmentally Superior Alternative/Environmentally Preferred Alternative," of the 2013 Draft EIR/EIS/EIS, the National Environmental Policy Act (NEPA) requires identification of the alternative that is considered environmentally preferable. "Environmentally preferable" is used to describe the alternative that would best promote the national environmental policy as expressed in Section 101 of NEPA—that is, it would cause the least damage to the biological and physical environment. In addition, the "environmentally preferable" alternative best protects, preserves, and enhances historic, cultural, and natural resources. Although Council on Environmental Quality regulations require identification of the environmentally preferred alternative, they do not require adoption of this alternative.

The State CEQA Guidelines (Sections 15126.6[a] and 15126.6[e][2]) require that an environmental impact report's (EIR's) analysis of alternatives identify the "environmentally superior" alternative among all of those considered. In addition, if the No-Project Alternative is identified as the environmentally superior alternative, then the EIR also must identify the environmentally superior alternative among the other alternatives. Under CEQA, the goal of identifying the environmentally superior alternative is to assist decision makers in considering project approval. CEQA does not require an agency to select the environmentally superior alternative (State CEQA Guidelines Sections 15042–15043).

The TRPA Compact and Code of Ordinances do not specifically call for identifying an environmentally superior or preferred alternative; however, they rely on other State and federal regulations and when evaluating alternatives, TRPA identifies the alternative that would best maintain and/or achieve environmental thresholds (discussed in Section 4.5, "Consequences for Environmental Threshold Carrying Capacities," of the 2013 Draft EIR/EIS/EIS). The TRPA Compact and Code of Ordinances allow for the consideration of social, technical, or economic impacts when an alternative is selected.

Although the recreation and restoration components were combined in the alternatives presented for analysis in the Draft EIR/EIS/EIS, it sufficiently addresses the potential environmental effects of implementing these recreational and restoration components, regardless of the ultimate combination. The alternatives evaluated encompass the reasonable range of potential environmental effects. Based on the analysis of impacts, the action alternatives present tradeoffs related to overall environmental advantages. These alternatives were developed by looking at a broad range of restoration approaches and levels of recreation infrastructure consistent with the

project's goals and objectives. This range of reasonable alternatives complies with the requirements of Title 14, Section 15126.6 of the California Code of Regulations (14 CCR 15126.6), also referred to as the State CEQA Guidelines; Title 40, Section 1502 of the Code of Federal Regulations (i.e., 40 CFR 1502); Article VII(a)(3) of the TRPA Compact; and Section 5.8.B of the TRPA Code of Ordinances. Each of these alternatives is feasible, based on relevant economic, environmental, social, technological, and legal factors, although they provide different advantages and disadvantages related to environmental impacts and achievement of the project's purpose, need, and project objectives.

AO8-3 The commenter suggests that a number of significant and unavoidable short-term construction-related air quality impacts have not been identified.

Air quality impacts were addressed in Section 3.2, "Air Quality and Climate Change," of the 2013 Draft EIR/EIS/EIS. As described in Section 3.2, almost all increased pollutant emissions associated with the improvements in the study area would be generated by construction activities. The method of analysis for short-term construction, long-term operational (regional), local mobile-source, and toxic air contaminant emissions is consistent with the recommendations of El Dorado County Air Quality Management District (EDCAQMD) and TRPA. The analysis described fugitive dust emissions of respirable particulate matter (PM_{10}), reactive organic gas (ROG) emissions, and emissions of oxides of nitrogen (NO_X).

Short-term construction-related emissions of ROG, NO_X, and PM_{10} were modeled using the California Air Resources Board–approved URBEMIS 2007 (Version 9.2.4) computer program and EMFAC 2007 emission factors as recommended by EDCAQMD and TRPA. URBEMIS is designed to model construction emissions for land use development projects and allows the user to input project-specific information. Input parameters were based on default model settings and information provided in Chapter 2, "Project Alternatives," of the 2013 Draft EIR/EIS/EIS. Modeling assumed an annual construction period of May 1–October 15 (120 work days) over 4 years and used the corresponding emission factors.

With implementation of Environmental Commitment 1, "Reduce the Generation of Construction-Related Emissions of ROG, NO_X, and PM_{10}," described in Table 2-6 of the 2013 Draft EIR/EIS/EIS, construction-related emissions of PM_{10} would not violate or contribute substantially to an existing or projected air quality violation. EDCAQMD considers projects that implement sufficient mitigation measures (or environmental commitments) that would prevent visible PM_{10} dust beyond the project property lines to generate less-than-significant PM_{10} emissions. Therefore, with the inclusion of Environmental Commitment 1, the impact related to construction-related PM_{10} emissions would be considered less than significant for all alternatives.

As described in the significance criteria presented in Section 3.2, projects that would not generate emissions of other criteria air pollutants that exceed a national or State ambient air quality standard would be considered less than significant. Therefore, implementation of Environmental Commitment 1 would ensure that emissions of the other major construction-related pollutants (e.g., PM_{10}) would not exceed an applicable ambient air quality standard. Furthermore, as determined by the Sacramento Metropolitan Air Quality Management District (SMAQMD), implementing Environmental Commitment 1 (i.e., implementing the SMAQMD Enhanced Fugitive PM Dust Control Practices) would reduce construction-related fugitive PM_{10} dust emissions by a minimum of approximately 75 percent and would prevent the fugitive PM_{10} dust from dispersing beyond the property boundary (SMAQMD 2009:Chapter 3). Implementation of this environmental commitment would also reduce exhaust emissions of NO_X, and PM_{10} from diesel equipment by 20 and 45 percent, respectively (SMAQMD 2009:Chapter 3).

AO8-4 The commenter expresses concerns associated with significant unavoidable cumulative impacts on Tahoe yellow cress if Alternative 1 ("Maximum Recreation") bridge and boardwalk infrastructure were to be constructed.

The Preferred Alternative does not include bridge and boardwalk infrastructure as proposed under Alternative 1. As described in Section 3.16, "Cumulative Impacts," of the 2013 Draft EIR/EIS/EIS, Tahoe yellow cress could be adversely affected by construction and recreation activities resulting from reasonably foreseeable projects (e.g., Edgewood Lodge and Golf Course Improvement Project) under Alternative 1. Also, as discussed in Impact 3.18-C30 (Alts. 1–5), "Cumulative Geomorphology and Water Quality—Long-Term Modifications in Upper Truckee River Coarse Sediment Transport and Delivery Downstream," depending on the alternatives implemented by upstream restoration projects and on the effects of climate change, the delivery of sands and gravel to Tahoe yellow cress habitat at the study area's beaches could be affected. Potential effects could combine with the effects of other actions on transport and delivery of coarse sediment. The incremental or combined effects on beach erosion are not predictable, however, because climate-change influences are highly uncertain. Conditions could range from worse than the existing degraded condition to a possible improvement, regardless of changes in coarse-sediment delivery. After thorough investigation, the cumulative effect on delivery of coarse sediment to the study area's beaches remains speculative.

AO8-5 The commenter states that there is conflicting information throughout the document, then refers to exhibit numbers that are inconsistent with those presented in the Draft EIR/EIS/EIS. The commenter also states that there are inconsistencies between descriptions in Section 2 and Section 3, with no further information provided.

The commenter offers no specific information or evidence that the analysis presented in the Draft EIR/EIS/EIS is inadequate; therefore, no further response can be provided.

AO8-6 The commenter states their indifference to proposed environmental commitments and further discusses traffic, scenic, noise, and air quality impacts on adjacent property owners, especially along California Avenue.

See responses to Comment Letter I-8.

AO8-7 The commenter suggests an additional cost analysis and suggests that Alternative 3 has the best cost benefit.

A cost analysis of the action alternatives was presented in Appendix E, "Alternatives Cost Estimate," of the 2013 Draft EIR/EIS/EIS. The analysis is consistent with the commentor's note that Alternative 3 has the highest cost benefit. The Preferred Alternative includes the restoration approach proposed under Alternative 3, with moderate recreation infrastructure on the west and no additional infrastructure on the east side of the marsh. Therefore, the overall cost of the Preferred Alternative is expected to be less than that of the action alternatives initially proposed, albeit in today's dollars. AO8-8 The commenter suggests updating and recirculating the EIR/EIS/EIS.

The standards for determining when recirculation is required include CEQA Section 21092.1 and State CEQA Guidelines Section 15088.5, based on the case of *Laurel Heights Improvement Assn. v. Regents* (1993), 6 Cal 4th 1112, known as "Laurel Heights II." State CEQA Guidelines Section 15088.5 requires that a lead agency recirculate an EIR when significant new information is added to the EIR after public notice has been provided for public review of the Draft EIR, but before the EIR is certified. "Information" can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not "significant"

unless the EIR is changed in a way that deprives the public of meaningful opportunity to comment on a substantial adverse environmental effect of the project, or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project proponents have declined to implement. “Significant new information” requiring recirculation includes, for example, a disclosure showing that:

(1) a new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented;

(2) a substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance;

(3) a feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project proponents decline to adopt it; and/or

(4) the Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

NEPA dictates a process for incorporating new information into an already published environmental impact statement (EIS), called supplementation. A supplemental EIS must be prepared if there are “substantial changes in the proposed action” relevant to environmental concerns or “significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts” (40 CFR 1502.9[c][1]). The supplement should focus on the new information (40 CFR 1502.9[c][1]). CEQ has clarified that new alternatives outside the range of alternatives already analyzed would trigger the requirement for a supplemental review. Supplements may be prepared for either Draft or Final EISs. Because there are no substantial changes in the proposed action or significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts requiring preparation of a supplemental draft one is not required.

The TRPA Compact and Code of Ordinances do not specifically provide an approach for when recirculation is required; however, they rely on other State and federal regulations when evaluating new information that may substantially increase the severity of an environmental impact.

Letter AO9

SKY MEADOWS HOMEOWNERS ASSOCIATION, INC.

April 2, 2013

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

RE: COMMENTS ON UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT (STATE CLEARINGHOUSE #2007032099)

Dear Mr. Carroll:

The Sky Meadows Homeowners Association, Inc. (HOA) represents seventy-nine (79) owners of single family and duplex dwellings at Sky Meadows who may be significantly affected by the above-referenced project. All properties are located on Sky Meadows Court in South Lake Tahoe (96150), bordering the UTR. While we appreciate the CTC's goals of restoring the Upper Truckee River and Marsh, we are concerned that the project may negatively affect our community due to increased noise, traffic, trespass, trash, and flood risk. We have the following specific comments: AO9-1

1. Any and all proposed action(s) should be sited, designed, and constructed—with certainty and a substantial margin of safety—to avoid any increase in flood risk at Sky Meadows. A sizable portion of the Sky Meadows property is already located within existing flood zones, and the meadow immediately adjacent to homes has flooded in past years. Your design team should ensure—under all alternatives—that flood risk is not exacerbated at Sky Meadows. Any increase to flood risk would endanger homes and add to costs for flood insurance coverage already borne by residents. AO9-2

2. Sky Meadows is **private property**, and is posted "No Trespassing." You, your staff, and your contractors should not assume that you may use Sky Meadows for access, staging, parking, or any other purpose, without express permission from the Sky Meadows HOA. Parking is very limited at Sky Meadows, especially during the summer construction season; our property may not be used by you, your partner agencies, or your contractors without advance written permission. AO9-3

3. Any and all recreation elements of the project (such as new trails, trailheads, or other public access points or facilities) must be sited, designed, and constructed to avoid increased trespassing into Sky Meadows property. Currently, there are no public trails along the Truckee River at Sky Meadows. Any addition of public access would significantly increase trespassing, illegal parking, noise, trash, dog feces, and would cause other negative impacts to our private property, such as homeless encampments, risk of fire, etc. AO9-4

In sum, while we support your restoration goals, your project must be carefully planned, designed, and implemented to avoid adverse impacts to our community. AO9-5

Thank you for this opportunity to provide comments. Please contact me should you have any questions regarding this letter.

Sincerely,

John A. Hollstien, President
Sky Meadows Homeowners Association, Inc.
(916) 444-3443
jhollstien@comcast.net

Mailing address: 2611 Marty Way
Sacramento, CA 95818

Letter
AO9
Response

Sky Meadows Homeowners Association, Inc.
John A. Hollstien, President
April 2, 2013

AO9-1 The commenter states that the proposed project will increase noise, traffic, trespass, trash, and flood risk for the Sky Meadows community.

Individual responses related to noise, traffic, trespass, trash, and flood risk for the Sky Meadows community are presented in responses to Comments AO9-2 through AO9-4.

AO9-2 The commenter states that the project must not exacerbate the flood risks already present within Sky Meadows to avoid any increased danger and/or flood insurance costs to residents.

See Section 3.1.1, "Flooding and Flood Hazards," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS. The analysis of the proposed project is consistent with CEQA, NEPA and TRPA requirements because the project would not change the existing flood hazards of the surrounding properties. See "Flooding and Flood Hazards," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS. Furthermore, financial responsibility for flood damages is not an issue relating to effects on the environment that requires an analysis under CEQA.

AO9-3 The commenter states that Sky Meadows is private property, and that advance written permission will be required for any use of the property during project construction.

The Conservancy would work with private landowners to obtain easements and agreements if private property is needed for access. In cases where an agreement between parties could not be made, the Conservancy would complete activities on State-owned land. See Section 3.1.2, "Traffic, Access, and Staging," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for additional information.

AO9-4 The commenter has concerns about recreation improvements near Sky Meadows and increased trespassing, illegal parking, noise, trash, dog feces, and other negative impacts on Sky Meadows, such as homeless encampments and risk of fire.

See Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS.

AO9-5 The commenter closes the letter and states that they support proposed restoration without adverse impacts on the community.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

Letter AO10

General Manager
Richard H. Solbrig

Directors
Chris Cefalu
James R. Jones
Randy Vogelgesang
Kelly Sheehan
Eric Schafer

South Tahoe
Public Utility District

1275 Meadow Crest Drive • South Lake Tahoe • CA 96150-7401
Phone 530 544-6474 • Fax 530 541-0614 • www.stpud.us

April 8, 2013

Scott Carroll,
Associate Environmental Planner
California Tahoe Conservancy
1061 Third Street
South Lake Tahoe, CA 96150

Re: CEQA/NEPA Draft EIR/EIS/EIS for the Upper Truckee River and Marsh Restoration Project (SCH #2007032099) – Public Services and Utilities Scoping Comments

Dear Mr. Carroll;

Thank you for providing this opportunity to comment on the subject document. As a public agency established to provide drinking water and sanitary sewer collection, treatment and export services to the greater south shore area, including the City of South Lake Tahoe, the South Tahoe Public Utility District (District) is providing the following existing utilities information to be considered for analysis in the joint EIR/EIS/EIS being prepared for this project. Based on our review of this information, the District believes that there is an urgent need to also consider alternatives to restore Trout Creek to its pre-1968 channel alignment, consistent with the purpose, need and objectives presented in the draft EIR/EIS/EIS.

AO10-1

Based on the information included with the draft EIR/EIS/EIS, the District understands that the project may involve the possible implementation of one of four restoration (action) alternatives being considered to meet the purpose, need and objectives of the project. The project area includes approximately 600 acres roughly centered over the Upper Truckee Marsh, including the downstream reaches of Trout Creek and the Upper Truckee River. The project's primary purpose is to restore natural geomorphic processes and ecological functions along the Upper Truckee River, along the west side of the Upper Truckee Marsh.

Trout Creek is located immediately east of the Upper Truckee River and flows across the east side of the Upper Truckee Marsh. As reported by the USGS, Trout Creek drains the second largest watershed, after the Upper Truckee River, within the Lake Tahoe Hydrographic area; comprising an estimated 13% of the total land area tributary to Lake Tahoe.

Review of historical imagery indicates that, within the southeast portion of the project area, the channel alignment of Trout Creek has been purposely altered to redirect flows north toward the east margin of the Upper Truckee Marsh. This has moved the main channel of Trout Creek more than 600 feet north of its pre-1968 alignment and within 200 feet of District sewer facilities and private parcels situated along the east margin of the marsh. Recent formation of a point bar along this reach of Trout Creek has moved the channel further north toward the east margin of the marsh. Redirection of Trout Creek flows by this point bar has flooded the District's utility easement and private parcels neighboring Trout Creek and poses a significant hazard to District facilities.

The District operates a sewer pump station and maintains a 10-inch sewer force main and 8-inch gravity sewer main which lie within the District's utility easement along the east margin of the marsh. The pump station receives more than 200,000 gallons per day (gpd) of sewage from approximately 640 properties within the Al Tahoe subdivision. This inflow is pumped through the 10-inch force main buried along the margin of the marsh. The 8-inch gravity main receives more than 40,000 gpd of sewage from about 150 properties neighboring Trout Creek and the Upper Truckee Marsh. The District is concerned that current and future flooding will restrict the District's ability to adequately maintain the gravity sewer main, remove potential blockages and control potential surcharges to the Upper Truckee Marsh. The District is also concerned that continued seasonal flooding and future channel erosion could further threaten the structural integrity of its sewer manholes; gravity sewer main and laterals; and sewer force main. Because of these concerns, the District is actively developing contingency plans, specifically for these facilities, in case of failure. AO10-1 cont.

The District concurs with the purpose and objectives of the Upper Truckee River and Marsh Restoration Project as presented in the subject draft EIR/EIS/EIS. The District also believes that there is an urgent need to consider alternatives to restore Trout Creek to its pre-1968 channel alignment, consistent with the purpose, need and objectives presented in the draft EIR/EIS/EIS. We look forward to working with the California Tahoe Conservancy to alleviate the Trout Creek flooding hazard.

Sincerely,

Ivo Bergsohn, P.G., C.Hg.
Hydrogeologist

Paul Sciuto, P.E.
Assistant General Manager

Cc: State Clearinghouse (Re: SCH #2007032099)
Tom Davis, Mayor, City of South Lake Tahoe
Patty Kouyoumdjian, Executive Officer, Lahontan Regional Water Quality Control Board
District Board of Directors
Richard Solbrig, P.E., General Manager
File

2

Letter
AO10
Response

South Tahoe Public Utility District
Ivo Bergsohn, P.G., C.Hg., Hydrogeologist
Paul Sciuto, P.E., Assistant General Manager
April 8, 2013

AO10-1 The commenter summarizes the proposed project and the need to include restoring the avulsed northeastern portion of Trout Creek to the pre-1968 channel alignment as part of the project.

The Conservancy has an existing license agreement with South Tahoe Public Utility District (STPUD) and has coordinated with STPUD on its ongoing sewer protection project. In 2014 STPUD implemented Year 1 construction activities associated with an adaptive management plan to protect the sewer infrastructure from flooding and reduce the risk of a sewer spill. The adaptive management plan consists of measures designed to both prevent permanent establishment of Trout Creek over the sewer lines and encourage flows to establish new flow paths to the south, away from STPUD facilities.

In Year 1 (2014), vegetative roughness elements were placed near the easement to prevent establishment of new channels and reestablish flow paths to the south. Some flow paths out of the existing channel that led northward to the easement were blocked to further direct flows southward. The Year 1 plan also included removal of a portion of an abandoned historical roadway that crossed the marsh. The roadway fill constricted flood flows and prevented the creek from freely migrating across the marsh.

The easement is expected to continue to become inundated during flood flows, but the vegetative roughness elements are intended to reduce inundation to the seasonal or episodic character of pre-2011 conditions. They also will provide long-term protection of the sewer facilities by encouraging channel formation and future channel migration in areas away from the easement, along with sediment deposition over the easement. STPUD will continue to implement the adaptive management plan for up to 4 more years.

Letter AO11

From: Rusty Jardine [rusty@tcid.org]
Sent: Monday, March 04, 2013 7:41 AM
To: Carroll, Scott@Tahoe
Cc: 'Ernest C. Schank'
Subject: Draft EIR/EIS Upper Truckee River and Marsh Restoration Project, El Dorado County California

Scott,

Good morning! We see notice of the above-captioned matter in the Federal Register. What is the scope of this project? What, if any, impact may this project have on river flows below Tahoe Dam? AO11-1

Rusty Jardine, Esq.
District Manager, Truckee-Carson Irrigation DIstrict

Letter
AO11
Response

Truckee-Carson Irrigation District
Rusty Jardine, Esq., District Manager
March 4, 2013

AO11-1 The commenter requests information about any potential effects on Truckee River flows below the dam.

Neither the action alternatives analyzed in the 2013 Draft EIR/EIS/EIS nor the Preferred Alternative would modify the annual volume of water discharged to Lake Tahoe via surface runoff or groundwater discharge, or modify the stream hydrograph or lake level in a manner or of a magnitude that could affect operations of the Lake Tahoe dam or release of flows below the dam.

Letter AO12

Washoe Tribe of Nevada and California

Cultural Resources Department/Tribal Historic Preservation Office

Protect, Preserve and Promote Washoe Heritage and Culture

April 24, 2013

Scott Carroll, Associate Environmental Planner
California Tahoe Conservancy
South Lake Tahoe, CA. 96150

Subject: Draft EIR for the Upper Truckee River and Marsh Restoration Project

Dear Mr. Carroll,

Thank you for consulting with the Washoe Tribe of Nevada and California on the proposed undertaking and Draft EIR for the Upper Truckee River and Marsh Restoration Project.

The project area of potential effect is within the ancestral territory of the Washoe Tribe. The tribe has occupied this area since time began as our stories tell us. The marsh and surrounding landscape was a very important place for the Washoe. The lake and associated landscapes are still important to the Washoe.

We are supportive of a project that restores the natural ecosystem balance. This project has many benefits for the flora and fauna and improving water quality and lake clarity. We prefer the alternative which best captures and restores the marsh to a condition before manmade interferences disrupted the natural balance and ecosystem.

After review of the document we have several comments to add, (listed below):

AO12-1

3.3.7. Suggest change to this:
Unlike Native Americans in many other regions of California, even into the 20th century, the Washoe were not completely displaced from their traditional lands. In 1917, the Washoe Tribe began reacquiring a small part of their traditional lands (Nevers 1976:90–91). The Washoe remain a tribe recognized by the U.S. government and have maintained an established land base. Its 1,600 tribal members are governed by a tribal council that are elected by tribal members who live in one of the 4 communities (Woodfords, Dresslerville, Stewart, and Carson), as well as by members from nonreservation areas. The contemporary Washoe have developed a comprehensive land use plan (Washoe Tribal Council 1994) that identifies the goals of reestablishing a presence in the Tahoe region and revitalizing Washoe heritage and cultural knowledge, including the harvest and care of traditional plant resources and the protection of traditional properties in the cultural landscape (Rucks 1996:3).

AO12-2

919 Highway 395 South, Gardnerville, Nevada 89410
Work (775) 888-0936 • Cell (775) 546-3421 • FAX (775) 888-0937

Impact 3.3-1 (Alt 1): If there is any grading in an archeological site, we ask that a Washoe Site Monitor be present during any grading. Of course we prefer no grading in an archeological site.

Impact 3.3-2 (Alt 1): If there is any grading in an archeological site, we ask that a Washoe Site Monitor be present during any grading. Of course we prefer no grading in an archeological site. AO12-3

Impact 3.3-4 (Alt1) we are in concurrence with this measure and assurance

The Washoe Tribe is requesting to consult with during the development of the Cultural Resources Protection Plans (CRSP) for each of the alternatives where a CRSP is proposed. In addition the Washoe Tribe is requesting consultation when any of the prehistoric resources may be affected by the proposed undertaking. AO12-4

There is an archeological site which is not listed in the inventory that may be affected by the proposed project. I would like to discuss this feature with you upon receipt of this letter and at your convenience. AO12-5

Thank you please call me if you have any questions at (775) 546-3421. Please note this is my cell phone number as I in the middle of relocating my office.

Respectfully,

Darrel Cruz, CRD/THPO

Letter
AO12
Response

Washoe Tribe of Nevada and California
Darrel Cruz, CRD/THPO
April 24, 2013

AO12-1 The commenter states that the study area is within an important ancestral territory of the Washoe Tribe and that they support the restoration.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

AO12-2 The commenter suggests text changes to Section 3.3, "Archaeological and Historical Resources," of the Draft EIR/EIS/EIS.

Text changes to Section 3.3 are presented in Chapter 5, "Revisions to the Draft EIR/EIS/EIS."

AO12-3 The commenter refers to the discussions of Impacts 3.3-1 (Alt. 1), 3.3-2 (Alt. 1), and 3.3-4 (Alt. 1), stating that they prefer that no grading occurs at any archaeological sites; however, if necessary, the preference is to use a Washoe site monitor.

As described in Section 3.3 of the 2013 Draft EIR/EIS/EIS, one potentially significant cultural resource (CA-ELD-26/H) has been identified within the study area and could be adversely affected during construction. However, as described in Environmental Commitment 2, "Prepare and Implement a Cultural Resources Protection Plan," the Conservancy would prepare a cultural resources protection plan that would include oversight of grading in areas with the potential for discovery of significant resources in the vicinity of CA-ELD-26/H. Additionally, project construction personnel would be trained on the possibility of encountering potentially significant resources; if such resources were encountered, proper measures would be taken to protect them. Furthermore, final design of the Preferred Alternative project elements would completely avoid the CA-ELD-26/H site

AO12-4 The commenter requests consultation with the Washoe Tribe during development of the cultural resource protection plan.

See response to Comment AO7-1.

AO12-5 The commenter refers to an archaeological site not listed in the inventory that may be affected by the proposed project and requests follow-up discussion.

Upon receiving the comment letter, a Conservancy representative contacted Mr. Cruz to discuss the archaeological site (Hughes, pers. comm., 2013). Based on discussions with Mr. Cruz and after review of the inventory information, it was noted that the site was discussed in the 2013 Draft EIR/EIS/EIS and that the project would not affect it.

SECTION B

Individuals

This page intentionally left blank.

Letter I1

From: Mike Alexander [tahoealexander@hotmail.com]
Sent: Thursday, March 14, 2013 9:39 PM
To: Carroll, Scott@Tahoe
Subject: Utr marsh restoration comments

Mr. Carroll, please consider the following comments for the upper truckee marsh restoration:

I completely support the restoration of the upper truckee marsh and if effectively implemented, the restoration has enormous potential to improve the quality of water entering Lake Tahoe. Furthermore, returning the functionality of the marsh to a condition not seen since the construction of Tahoe keys is without question the most important task that can be addressed by any lake Tahoe restoration organization.

I first must point out that appropriate public access to this sensitive region must be balanced with the practical limitations of construction and maintaining boardwalks and bridges. Public access at taylor creek and tallac creek marshes have coexisted for decades and I see no reason that limited public access can not be maintained at the truckee marsh with one exception. The alternatives which include the Barton beach boardwalk and bridge suggests a level of infrastructure which will diminish the projects ability to meaningfully meet objectives 1 through 5. Once the upper truckee river outlet meanders in the marsh as trout creek currently does, the only level of public access that is consistent with the other objectives is to maintain the current public access along the edges of the marsh and to not construct the Barton beach boardwalk and bridge. I1-1

Based on the information provided, alternative 3 appears to restore natural function and habitat in a manner superior to any other man made configuration. In addition alternative 3 will avoid flooding of property better than any other alternative by directing flow to the central region of the marsh.

The importance of the restoration of the largest marsh in the sierra's can not be over stated. Constructing the Tahoe's keys subdivision and marina in the marsh has already taken enough from the Tahoe basin and is providing ample public access to the marsh, we simply chose to modify the form of the marsh for our wants. We have to take this opportunity to conserve the remaining portions by constructing the alternative that reduces our impact on lake Tahoe to the greatest extent possible and this includes the most natural river realignment, and no additional recreation infrastructure, the keys have degraded the basin enough already. I1-2

Thank you for considering these comments, best regards

Michael Alexander

Sent from my iPhone

Page 1

Letter
I1
Response

Mike Alexander
March 14, 2013

I1-1 The commenter's support for restoration of the Upper Truckee Marsh is noted. The commenter has concerns that construction of the Barton Beach boardwalk and bridge would diminish the project's ability to meet Objectives 1–5.

See response to Comment AO5-6.

I1-2 The commenter's support for Alternative 3 is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative.

Letter I2

From: ryan@tahoepropertyforsale.com
Sent: Friday, March 29, 2013 10:20 AM
To: Carroll, Scott@Tahoe
Subject: Truckee Restoration

Scott,

I was a pleasure meeting you last night. What follows are my comments in regards to supporting restoration alternative 1. Thank you for the knowledge, your conservation efforts and your time.

I've lived in Tahoe over 10 years and sell Real Estate for Pinnacle Real Estate Group over on Harrison Ave. in the Al Tahoe Neighborhood. I am also a homeowner near the meadow that the stream restoration is proposed for. I use the Truckee River and Trout Creek quite a bit for Kayaking and Stand up paddleboarding. I use the meadow trail frequently on my bike. The meadow is an amazing bird sanctuary that gets a lot of use, sometimes to the point of being trampled by ignorant folks. Most folks don't realize that this is a special place that is home to many endangered species.

I love what has been done by the airport with the river restoration there. It was well done from a lake clarity standpoint and from a recreational river standpoint. I'm excited to see the river restoration take place further downstream and I welcome the benefits to lake clarity and to our community's bikeability and walkability goals. I2-1

All summer long 1000's of families bring their bikes to Tahoe and go on tour and are routed by signs through Al Tahoe neighborhood and all summer I hear "Where did the bike route go?" "How do we get across to camp Richardson?" How do we get to Baldwin beach? In the confusion the meadow gets trampled a little more every day. Tourists are then forced to dangerously pursue the side of the highway sucking exhaust to take a much longer route to the west. Next time they drive their car across town further adding to the traffic congestion nightmare that is summer in Tahoe.

So in conclusion supporting restoration alternative 1 which shows a bridge over the Truckee and a dedicated trail or boardwalk that keeps folks from trampling the bird sanctuary, would not only further lake clarity and save endangered species, but add to our communities' goals of being more bikeable and walkable, lessening automobile pollution, and drawing more tourists!

Sincerely

Ryan D. Anderson

Ryan Daniel Anderson
530-416-9966
Ryan@tahoepropertyforsale.com
www.tahoepropertyforsale.com

Letter
I2
Response

Ryan D. Anderson
March 29, 2013

I2-1 The commenter's support for Alternative 1 is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative.

Letter I3

April 5, 2013

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

Comments on Dunlap Ranch Proposals by CTC
by the undersigned

These generic comments apply to all of the alternatives or any one that is a combination of features of all four changes.

As property owners of land that is both a part of the project and adjacent to it, we are in a unique position. The river runs through our property and therefore any changes will have a direct impact on us. We realize the goal is to improve lake quality, which is a positive. On the other hand we believe that our concern for the security of our boundaries should be respected and considered. We are in favor of anything that curtails outside access to our property. Presently, we have people coming in through your Conservancy lot on Michael. They are no doubt encouraged by the obvious trail through the lot which leads to our property and a fence that is regularly knocked down as soon as it is repaired. People also come through and around the fences on the north side. When confronted (even within sight of our no trespassing signs), most pay no attention to the property owners. Some state ignorance of private ownership because the fences have been destroyed by their predecessors.

There have been arrests of juveniles on foot or in cars. There have been transients who have relocated there after being forced to leave their camp behind Carrows and Motel 6. Dog walkers and bicyclists seem to think they have a pass. I3-1

We would encourage any solution that promotes flooding to the east of the river rather than to the west towards houses.

Comments on the specific alternatives

We have strenuous objection to Alternative 2 because it brings the river too close to our houses. That subjects us to more hikers, bicyclists, dog walkers and kayakers who drawn to the river. A lack of fencing will give the mistaken impression that the land is public. The possibility of serious confrontations is very possible.

Alternatives 1 and 3 fill in the river bed and meld it into the present landscape. That will create a large open area to the west that includes our property. We are afraid that this larger area will be a magnet for trespassers from the Michael and or the California street and from the north to attract runners, bikers and hiker/dog walker.

Alternative 4 is the least objectionable.

Request for notice

Up to this time we have not received any notices of meetings regarding the property. Please send notices to the following:

Nancy & John Ball & Amy Tyler Busch
4401 Crestwood Way
Sacramento, CA95822

Royce Dunlap
2363 Washington
South Lake Tahoe, CA 96150 I3-2

Request for clarification

Statements were made to Royce Dunlap and Tom Rosenberg that the Conservancy does not have the remedy of eminent domain. Please confirm that in writing to the above named. I3-3

Likewise, please clarify the details of the access points and staging areas set forth for Colorado and Washington Streets. I3-4

Sincerely,
John & Nancy Ball
Amy Tyler Busch
Royce Dunlap

Letter
I3
Response

John & Nancy Ball, Amy Tyler Busch, Royce Dunlap
April 5, 2013

I3-1 The commenters state their concern about security and trespassing and support for any measures that would curtail access to their property.

See Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for a discussion of police protection services in the study area.

I3-2 The commenters favor any solution that promotes flooding to the east of the river rather than to the west.

See Section 3.1.1, "Flooding and Flood Hazards," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for a discussion of flooding under the Preferred Alternative.

I3-3 The commenters' opposition to Alternatives 1–3 and support for Alternative 4 is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative.

I3-4 The commenters' request that public meeting notices be sent to addressees listed in the comment letter is noted.

Addresses provided in the comment letter have been placed on the project mailing list.

I3-5 The commenters inquired whether the Conservancy would use eminent domain.

The Conservancy would work with private landowners to obtain easements and agreements to implement project activities on private property. In cases where an agreement between parties cannot be reached, the Conservancy would not pursue project improvements on that parcel.Use of private lands and the need for eminent domain are not required to meet the goals and objectives of the project or to mitigate impacts.

I3-6 The commenters request details regarding access points and staging areas on Washington Avenue or Colorado Avenue.

See Section 3.1.2, "Traffic, Access, and Staging," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for further discussion of construction-related traffic.

Letter I4

Dear Mr. Carroll, 1 April, 2013

Thank you for the opportunity to respond to options being considered in the Upper Truckee River and Marsh Restoration Project.

I have waded through an enormous amount of web-based materials, and attended the March 28th public information session.

In an effort to simplify my input on what seems to be an over the top amount of study and regulation, I will categorize my thoughts below.

1. **Maximizing recreation:** I think the concept of maximizing recreation is a bad idea. The area needs protection, not overuse, and the Conservancy historically does poorly on seeing that existing rules are followed. (eg. dogs on leashes, smoking, or dog exclusion periods). I am not at all against people being able to see and enjoy the wildlife, or the beauty of the meadow, but the focus should be preservation, and education, not recreation. I4-1

2. **Trails and walkways, observation areas:** If trails and walkways (over the flood areas) will help keep people out of the deeper areas of the meadow, where the wildlife hides, and keep them more on the periphery of the meadow that would be great. This would represent an improvement over what happens now. Observation areas would also be nice. I4-2

3. **Bikes:** I do not believe bikes are a good match on a meadow. I suggest you put bikeracks at entrances, and have people "lock 'em and leave 'em. It slows the pace of activities, and since authorities can't seem to catch "rule offenders" when they're on foot, any enforcement will be at an even bigger disadvantage, if bikes are allowed. I4-3

4. **Aggradation, new channels, and better filtration of sediments**...I think you folks have the consultative resources to improve this. Decreasing the amount of sediment which is transported into the lake is vital, but I trust you to choose a solution which will reduce transport of sediments, and improve the meadow as a wildlife habitat. I hope you also consider mosquitoes, and the hazards they present, in your thinking. I4-4

5. **Kiosks**....are a good thing, low cost, and informative, but they need to be maintained, with different messages for different seasons, updates, etc. Only if they are maintained am I in favor of having Kiosks. I4-5

6. **Parking:** helpful if you can arrange for it. What about using the lot you have by Lily for parking? Most people walk to the beach, and parking in that location would be a help both for visitors and for enforcement. I4-6

7. **Neighbors:** Most of us lucky enough to live on the meadow are happy for others to have the opportunity to enjoy it also. We do, however object to unleashed dogs, to loud crowds, foul language, surley attitudes and people cutting through our yards. I I4-7

realize you can't fix the ills of society, but I ask you to keep these issues in mind as you deliberate solutions. I4-7 cont.

7. **Enforcement:** Having lived on the meadow for the past 6 years, I believe that most of those who flaunt the rules of the Meadow are people who live here, (often for just a season or a year) rather than tourists. I believe you need to consider restoration solutions which can reduce rule breaking as part of your action plans. I believe education is a part of the solution, as is enforcement. I4-8

I hope these general comments will be of use as you discuss. I thank you for setting this land aside, and hope you will select options which will preserve it.

Thank you,

Sincerely,

Gregory W. Bergner
P.O. Box 18548
South Lake Tahoe, CA 96151

Letter
I4
Response

Gregory W. Bergner
April 1, 2013

I4-1 The commenter's concern about maximizing recreation is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate infrastructure on the west side of the marsh and no additional recreation access on the marsh's east side.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I4-2 The commenter's support for trails, walkways, and observation areas on the periphery of the meadow is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I4-3 The commenter is concerned about allowing bikes within the marsh and recommends that bike racks be installed at the entrances.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I4-4 The commenter's support for selecting an alternative that addresses sediment, wildlife habitat, and mosquito hazards is noted.

All of the action alternatives include elements that would reduce the amount of sediment transported into Lake Tahoe and enhance wildlife habitat in the meadow.

The primary objective of all four alternatives considered is to decrease channel capacity and reestablish the connection between the channel and its floodplain so that moderate flows (and the sediment and nutrients conveyed by the flow) would overbank more frequently. As discussed in Section 3.9, "Geomorphology and Water Quality," of the 2013 Draft EIR/EIS/EIS (page 3.9-16), previous studies have found that sediment delivery and retention in the study area is a function of water depths and floodplain connectivity, with sediment delivery and retention increasing at greater water depths and increased frequency of connectivity (Stubblefield et al. 2006). The greatest sediment retention was found to occur in areas where flow velocities were reduced or dissipated, such as through the lagoon or backwater areas. The increased frequency and area of inundation during moderate flows would promote sediment deposition and retention of fine-grained sediment in portions of the floodplain that are currently not inundated. In addition to

increasing the frequency of overbanking flows onto the floodplain, other design elements are also likely to reduce sediment inputs into Lake Tahoe, including reactivation of the existing secondary channel during moderate overbanking events.

In addition, the Preferred Alternative includes engineered restoration elements to address local sources of sediment from streambank erosion. Specifically, bank protection elements including rock and large wood are planned to stabilize about 1,300 feet of bank downstream of the U.S. Highway 50 Bridge and on about 2,600 feet of lower Trout Creek. Reactivating the secondary channel and lowering the floodplain on the left bank would also reduce hydraulic stress on the main channel banks during high flows.

Restoring the natural sedimentation processes on the adjacent floodplain and meadow areas would also enhance the habitats within these areas. Restoration of these processes would increase micro-topographical complexity, which would result in varied topography and hydrology supporting a greater diversity of plant species. Additionally, infiltration of overbanking water would increase soil moisture over a greater area than under existing conditions, improving conditions for marsh and riparian vegetation. Partial backfilling of the existing channel would be contoured to provide varied soil moisture conditions, but with net down-valley flow through swale connections, rather than ponding areas.

Much of the project area is identified as a breeding area for mosquitoes. As stated in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, Environmental Commitment 10 requires the Conservancy to establish and implement a management agreement with the El Dorado County Vector Control District (EDCVCD). The agreement would include but not be limited to measures ensuring necessary access for monitoring and control measures, EDCVCD review of project plans and provision of recommendations for management of mosquito populations, and applicable BMPs from the California Department of Public Health's *Best Management Practices for Mosquito Control on California State Properties*. In addition, see Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for further discussion of mosquito control. The Conservancy has committed to establishing and implementing a management agreement with EDCVCD to adequately control mosquito populations in the project area. The management agreement would include criteria for maintaining mosquito populations at or below levels under existing conditions.

I4-5 The commenter's support for kiosks if they are maintained and updated is noted.

The Preferred Alternative would include an interpretive kiosk that would provide information to support public access, recreation infrastructure, and visitor education and interpretation of the ecological values of the Upper Truckee Marsh (e.g., maps and information regarding sensitive resources). In addition, see Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for further discussion of management and maintenance.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I4-6 The commenter's preference for parking is noted.

See response to Comment AO2-7. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I4-7 The commenter's concern about management of activities in the study area is noted.

See Section 3.1.4, “Management,” in Chapter 3, “Master Responses,” of this Final EIR/EIS/EIS for discussions related to management of the study area.

I4-8 The commenter’s concern about management of activities in the study area is noted.

See Section 3.1.4, “Management,” in Chapter 3, “Master Responses,” of this final EIR/EIS/EIS for discussions related to enforcement in the study area.

Letter I5

Upper Truckee River and Marsh Restoration Project Comments

To Whom It May Concern:

I am a 34 year resident of South Lake Tahoe, currently living on Argonaut Avenue which boarders the Marsh on the east side near San Francisco Street. I appreciate all that the Conservancy has done to keep the neighbors informed and give voice to their concerns, including the workshops on this project.

As I have no expertise in water or wetland management, I will not comment extensively on the restoration of the historic channels of the Upper Truckee River other than to say that I support any action which reduces sediment flowing into Lake Tahoe as long as it also protects wildlife habitat in the Marsh. I5-1

My main comments will be directed towards the improvements and management of recreation included in the Alternatives 1-4 on the east side.

Re: **TRPA Goal 1—"Encourage opportunities for dispersed recreation when consistent with environmental values and protection of natural resources."**

California Tahoe Conservancy Objectives (partial list)

- **Objective 1: Restore natural and self-sustaining river and floodplain processes and functions.**
- **Objective 2: Protect, enhance, and restore naturally functioning habitats.**
- **Objective 3: Restore and enhance fish and wildlife habitat quality.**
- **Objective 4: Improve water quality through enhancement of natural physical and biological processes.**
- **Objective 5: Protect and, where feasible, expand Tahoe yellow cress populations.** I5-2
- **Objective 6: Provide public access, access to vistas, and environmental education at the Lower West Side and Cove East Beach consistent with other objectives.**

I do not believe that increased recreation as in Alternative 1 is consistent with these goals and objectives. In fact, unless the recreation is managed more proactively than in the past, none of the alternatives will protect the flora and fauna habitat. I have heard many times about the value of this large, unique Marsh to the Lake Tahoe Basin. The public (mostly locals) have continued to ignore and abuse the rules that the Conservancy has posted at every entrance to protect this valuable habitat. We continually observe unleashed dogs, cigarette butts on the trail, alcoholic drink litter on the beach, dog feces in the meadow, beach users trampling the yellow cress, and inappropriate noise levels. Many of the users of the meadow seem to think it is an off leash dog park, using chuckers to throw balls or Frisbees into the interior of the meadow for their pets. Your own document states that "Unleashed dogs are a recognized issue for recreation use management in the study area." I suggest that dogs and wildlife habitat are incompatible, and that dogs should not be allowed to enter the Marsh or the beach, even on designated trails, since dog owners have proven that they do not respect the rules already in place.

Re: **Impact 3.12-2 Potential need for Additional Public Services.**

I disagree with the findings contained in the study. The public services provided currently are inadequate to handle the demand. El Dorado County Animal Control refuses to respond to unleashed dogs on the Marsh. They will only respond to an animal bite or dangerous animal. The contract the El Dorado County Sheriff is not effective because too few hours are spent in active surveillance of the Marsh. Offenders begin to learn the schedule of visits and use the meadow at off hours, weekends, evenings, holidays, etc. Even when the patrol hours vary, they are inadequate. Calls to the Sheriff's office or CSLT police department get put to the back of the queue and rarely get a response, certainly not a timely one. We honestly don't know who to call when we see dogs chasing the ducks, beer parties on the beach, or people having sex in the meadow. I suggest that the Conservancy contract with a public or private agency for substantially increased hours of education, surveillance and citing of offenders, not just for off leash dogs, but smoking, drinking, litter and noise. I think this is especially important during the early part of the season, holidays, weekends, and evenings. In addition, surveillance cameras could be mounted at the entrances and beach area. My husband has suggested this to the CSLT Police department with no response. I5-3

Re: **Impact 3.16-2 Near the Eastern boundary of the study area, parking demand would remain similar to existing demand.**

I disagree with these findings. I think that four years of construction on the Marsh will draw tremendous interest and curiosity from locals and visitors alike. It won't be a secret, and many more people will be drawn to see what is going on both during and after the construction phase. Parking is already a problem in the neighborhood on narrow, crumbling streets. Visitors to the eastern side of the Marsh continually park on both sides of Argonaut and up San Francisco preventing normal flow of traffic. This is especially problematic in the summer. Disrespectful visitors park on private property, trample vegetation and leave trash in the street. This area differs significantly from the western boundary of the Marsh. This is a neighborhood with private (not commercial) homes directly bordering the meadow. I suggest that the Conservancy use their property at the end of Lily as a designated parking lot and open the Lily gate as the main entrance to the Marsh. Most visitors are headed for the beach and some even breach this gate illegally to avoid a longer walk. Alternatively, the city could post "NO PARKING" signs on one side of the streets in the vicinity so that traffic could flow normally. I5-4

Re: **Current State of the "social trail" along the eastern edge of the Marsh.**

The existing main trail running along the edge of the Marsh paralleling El Dorado Street, Argonaut Avenue, and Bellevue Ave. is in varying states of usability. Some areas are flooded much of the year; some parts are muddy, branched or severely compacted. Many visitors do not respect the trail and access the interior of the meadow or private property. I5-5

Summary and Conclusion: We have been watching this project since 2006 and are hopeful that the Conservancy now has the resources to bring it to conclusion. I believe this could be a very beneficial project for the community, and certainly for wildlife habitat and the clarity of the lake. I would endorse a trail upgrade such as presented in **Alternative 3** (with respect to the recreation aspects only) to preserve the integrity of the meadow. In addition, if it were built in such a way as to keep people from accessing the interior of the meadow, that would be even more beneficial. Small viewpoints with signage would be desirable if they were maintained in good repair. In addition, I would ask that the Conservancy consider the following as critical actions regardless of which Alternative is chosen. I5-6

- Actively manage the property including the beach by hiring personnel to enforce the rules already in place and educate the public about the Marsh habitat. If you can provide millions of dollars for this project, can you not find a few thousand each year for its protection? I5-7
- Consider opening the Lily Street gate and provide adequate parking to reduce on street neighborhood parking and degradation of private property I5-8
- Consider banning dogs from the Marsh permanently, especially if no active enforcement is planned
- Provide increased trash pick-up during summer, weekends, and holidays. I5-9

We have been "neighbors" of the Conservancy for seven years and hope to see some improvements in the management of their property in terms of active supervision.

As I sit at my computer and look out the window at the Marsh, I see a family of two adults, three small children and one leashed dog. This is what I want the future to look like, not the interaction I had yesterday with two adults and four (count 'em, four) dogs off leash who thought it was OK because they lived "just up the street"!

Thank you for the opportunity to respond and comment on the Upper Truckee Marsh Restoration Project. We will be watching the project with interest and excitement for the future.

Sincerely,

Jean Bergner

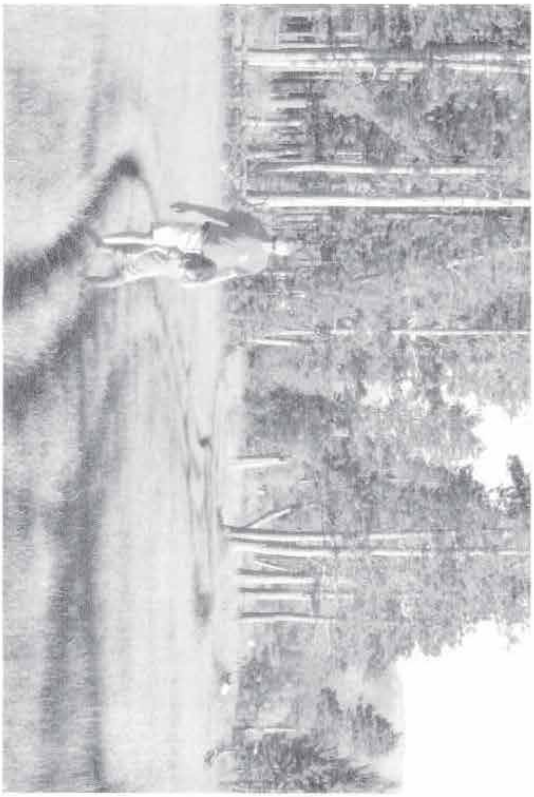
PO Box 18548

South Lake Tahoe, CA 96151

Parking on Argonaut Ave. on a summer day

After a warm May weekend on the Upper Truckee Marsh, 2009

Off leash dog, owner throwing frisbee, April 2013



Muddy braided trails, July 2012

Letter
I5
Response

Jean Bergner
April 8, 2013

I5-1 The commenter's support for reducing sediment flowing into Lake Tahoe is noted.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I5-2 The commenter's opposition to Alternative 1 is noted. The commenter's concern about off-leash dogs in the Upper Truckee Marsh is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative. See Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for a discussion of animal control services in the study area.

I5-3 The commenter believes that the existing public services provided for the marsh are inadequate.

See Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for a discussion of police protection services in the study area.

I5-4 The commenter disagrees that the demand for parking would be similar to existing demands and suggests additional parking in Conservancy lots to the east.

See response to Comment AO2-7 for a discussion of parking needs associated with minimum, moderate, and maximum recreation levels of use.

I5-5 The commenter's opinion of the user-created trails east of the marsh is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate infrastructure on the west side of the marsh and no additional recreation access on the marsh's east side. In addition, the Conservancy would continue to manage and reduce the impacts of recreational use and new trails on the east side while maintaining and expanding on-site signage.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I5-6 The commenter's support of Alternative 3 recreation components is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a

Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I5-7 The commenter recommends hiring enforcement personnel in the study area.

See Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for a discussion of police protection services in the study area.

I5-8 The commenter suggests additional parking in Conservancy lots to the east.

See response to Comment AO2-7 for a discussion of parking needs associated with minimum, moderate, and maximum recreation levels of use.

I5-9 The commenter's opposition to allowing off-leash dogs in the Upper Truckee Marsh and suggestion for additional trash pickup in the study area is noted.

See Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for a discussion of trash pickup and animal control services in the study area.

Letter I6

From: Jim Carlson [jim_carlson1999@yahoo.com]
Sent: Monday, April 08, 2013 12:22 AM
To: Carroll, Scott@Tahoe
Subject: EIR/EIS for Truckee River Marsh

Mr. Carroll and CTC,

I write today concerning your Draft EIR/EIS for the Truckee River Marsh. You cannot honestly adopt "findings of no significant impact" for this project unless you are going to prohibit DOGS from using any and all new recreation elements that you construct.

It may be true that the proposed restoration project will reduce fine sediment, nutrients, and other pollutants headed for Lake Tahoe, and it may be true that the proposed restoration project would improve certain habitat attributes. I applaud you for taking on those issues,and I support aggressive restoration to protect Lake Tahoe and the Marsh itself. But building any new trails, trailheads, parking areas, boardwalks, or any new facilities that will facilitate increased recreational access to the Marsh will encourage, abet, and invite significantly more DOGS. And the increase in dog use will result in greater impacts to wildlife and significantly more bacteria and pathogens in the waters of the Marsh, River, and Lake.

The signs you have posted along the Cove East trail are a miserable failure. Dogs are routinely off leash, and seen wading/swimming in the water. And it is obvious to anyone who uses the trail that people often do not "pick up" after their dogs. Persons walking on the trail largely miss out on the view because they must constantly look down at the ground to avoid stepping in dog feces.

Signs therefore are not and cannot be considered sufficient mitigation for increasing access by dogs. Signs about dogs are routinely ignored and do not work. I6-1

You should either:

(1) prohibit dogs on any and all new trails or boardwalks that you build;

(2) dedicate a hard-wired & mandatory budget for full-time ranger presence and enforcement of dog rules; or

(3) be honest and admit that you will create significant impacts to wildlife and water quality by inviting more dog access, and be honest enough to write findings of over-riding consideration if it truly is so important for our society to allow dogs to increasingly pollute the Marsh and Lake.

Any other action besides the three listed above would be a dishonest cop-out, a disingenuous head fake, a bureaucratic sham --- and would be unlawful.

Please prohibit dogs on any and all new recreation facilities that you build as part of this project.

Dogs and their pollution do not belong in the Marsh, and the public deserves to have dog-free areas to enjoy the Marsh and Lake shore.

Thank you for this opportunity to share comments as you design your project.

Sincerely yours,

Jim Carlson
Roundhill, NV

Letter
I6
Response

Jim Carlson
April 8, 2013

I6-1 The commenter's opposition to allowing off-leash dogs in the Upper Truckee Marsh is noted.

See Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for a discussion of animal control services in the study area.

Letter I7

From: Leslynn Catlett [pozartoo@gmail.com]
Sent: Sunday, April 07, 2013 8:42 AM
To: Carroll, Scott@Tahoe
Subject: Upper Truckee Marsh

I understand that there are several possible projects that are being considered for the Upper Truckee Marsh. I have enjoyed this area for many years and feel that it is perfect as it is. The peaceful beauty that changes with the weather and sun light through out the days is hard to find around Lake Tahoe any longer. Hikers, strollers, bikers, pets and wildlife seem to all find time and space to coexist. I have never heard anyone ask 'where is the nearest kiosk'. nor do people seem to miss any infrastructure that does not presently exist in the meadow. The meadow AS IT IS is why we all enjoy it. Building any structures would be disruptive and only serve to bring more expense to the community due to construction and upkeep costs. I am sure there are many other projects that could benefit our community. I don't understand why building kiosks that could shelter the homeless in this natural wonderland is a better idea than building actual shelters and providing jobs for the same homeless population. I7-1

Thank you for your time and attention,

Leslynn Catlett, O.D.

Letter
I7
Response

Leslynn Catlett
April 7, 2013

I7-1 The commenter's opposition to installing kiosks and additional infrastructure is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate infrastructure on the west side of the marsh and no additional recreation access on the marsh's east side. In addition, the Conservancy would continue to manage and reduce the impacts of recreational use. See response to Comment IO4-5 on kiosks.

Letter I8

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

Subject: Comments on Upper Truckee River and Marsh Restoration Project (Project)

Note: Withhold my home address from public disclosure to the extent allowed by law

I am a resident and/or property owner in the Tahoe Island Park 4 subdivision. I believe the Project planning and its environmental impact report (Report) do not adequately address the following possible real impacts to me and my neighborhood:

1. Construction noise in Tahoe Island Park 4 subdivision: this is a quiet residential neighborhood. Use of California Avenue as a haul route, and CTC neighborhood lots for the California Avenue Staging site, will generate abnormal and unacceptable local noise preventing my reasonable use and enjoyment of my home and property. The Report implies this noise could occur at any time, or continuously, from 8 AM to 6:30 PM, daily, for four years. Nevertheless, the Report assesses the short-term noise impact, for all project alternatives, as Less Than Significant, No Mitigation Needed. This finding defies common sense for significant residential impact, and the locations cited in Appendix J of the Report that were analyzed for noise impact do not include any streets in the vicinity of California Avenue or its proposed staging site. I strongly disagree with this finding for this neighborhood and consider the noise impact analysis for this neighborhood inadequate since it does not include any nearby locations. I8-1
2. Traffic in Tahoe Island Park 4 subdivision: California Avenue, designated as the only haul route in this subdivision, is one of its narrowest streets. California Avenue is heavily used by residents, people walking their children and pets, pedestrians, and bicyclists. The street is too narrow for large vehicles to pass each other or turn around, or even for normal vehicles to navigate without evasive maneuvers. When cars are parked along it, it is effectively single lane. Yet the Report assesses the short-term potential for conflict between construction traffic, local traffic, pedestrians, and bicycles as Less Than Significant, No Mitigation Needed. For this neighborhood, I strongly disagree with this finding and consider the analysis it is based on to be inadequate. The finding defies common sense, does not seem to address the residential nature of the neighborhood, and the traffic impact assessment discussions in the Report cite only the Al Tahoe, Hidden Woods, and Tahoe Keys Neighborhoods, but not this neighborhood. I8-2
3. Disruption of established neighborhood values in Tahoe Island Park 4 subdivision: the proposed California Ave Staging site makes use of small undeveloped residential lots acquired by the CTC because of, and to prevent damage to, their environmental sensitivity. The neighborhood had a reasonable expectation that they would never be used by the CTC as a construction site for staging heavy equipment and fill materials. The aesthetic fundamental nature of the neighborhood would be devastated for four years by this use. This impact is not recognized or assessed in the Report. I strongly object to use of the subject CTC lots by the Project for this or other construction purposes. I8-3

1

4. Neighborhood safety in Tahoe Island Park 4 subdivision: construction activity on the subject CTC lots in conjunction with neighborhood children playing near their homes creates a safety hazard that does not appear to be identified or analyzed in the Report. I strongly object to unnecessary multi-year heavy construction in the neighborhood and feel that the Report has not adequately assessed the impact to the safety of neighborhood children. *Will a four year old neighborhood child not be able to play catch outside his or her home in the summer until he or she is 8?* I8-4
5. Increased Flood Risk in Tahoe Island Park 4 subdivision: The models cited in the Report predict no increased residential flood risk as a result of the Project. If the models prove incorrect, no assessment has been included of how expensive the damages to property owners would be or whether the lead Agencies would be responsible, and have the funds, to financially compensate the property owners I8-5
6. Neighborhood notification in Tahoe Island Park 4 subdivision: even though my neighborhood is potentially highly impacted by Project construction, I was not directly notified of the Report or public comment period. Even if agency outreach and notification satisfied the letter of the law, it certainly did not satisfy the spirit of notifying impacted parties so they could comment. Few of my neighbors are aware of the possible impacts even now, and there has been little public response to the few recent outreach meetings. I feel the notification process has been inadequate and ineffective, at least near the potential California Ave Staging site. I8-6

I believe these and other potential impacts to my neighborhood are excessive, unnecessary, and unacceptable. Therefore, I respectfully request that the preferred alternative and final plans, include the features below. If this isn't done, I respectfully request that additional impact analyses and public comment be undertaken to address the inadequacies cited above from these features.

1. No use of the CTC lots designated as California Ave Staging for any Project construction activities. It is not necessary for either environmental or practical reasons. The CTC has other alternatives that do not require disrupting this, or other, residential neighborhoods. I8-7
2. No use of California Ave as a haul route for Project construction activities.
3. No use of any streets or parcels in the Tahoe Island Park 4 subdivision as Project haul routes or staging sites.
4. Locating internal haul routes for river work on the east side of the river to the maximum extent possible to minimize impact to close-by residential neighborhoods which are primarily on the west side of the river.
5. Posting a bond or securing insurance to compensate property owners for damages and loss of property value, if the Project increases residential flood risk and the FEMA 100-year floodplain.

Respectfully submitted,

Name: Jessie Chamberlain Date: 4/7/13

Address:

2

Letter
I8
Response

Jesse Chamberlain
April 7, 2013

I8-1 The commenter has concerns about construction noise associated with the use of California Avenue for staging and access.

Hauling and staging would occur within the project area as shown in Exhibit 2-2 in Chapter 2, "Project Description," of this Final EIR/EIS/EIS. The Preferred Alternative does not propose construction staging areas or access points on California Avenue. See Section 3.1.3, "Construction Noise," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for further discussion of construction-related noise.

I8-2 The commenter's concern about construction traffic is noted.

See Section 3.1.2, "Traffic, Access, and Staging," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for further discussion of construction-related traffic.

I8-3 The commenter's concern about aesthetic impacts associated with construction staging proposed on Conservancy lots on California Avenue is noted.

As shown in Exhibit 2-2 in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative does not propose construction staging areas or access points on California Avenue.

The scenic quality of an area is determined based on the variety and contrasts of the area's visual features, the character of those features, and the scope and scale of the scene. The analysis in the 2013 Draft EIR/EIS/EIS used a qualitative descriptive method to characterize and evaluate the visual resources of the areas that could be affected by the project. Project features were considered to have a substantial effect on visual resources if they would be visually prominent, threaten the attainment of a TRPA threshold, or be incompatible with the natural landscape. Section 3.14, "Scenic Resources," of the Draft EIR/EIS/EIS states that residents and recreationists near the storage/staging areas shown would also experience short-term changes to their views. Although there would be changes in views associated with construction, these changes would be temporary and would not substantially degrade the visual character of the area or reduce the threshold ratings from any shoreline or travel units.

I8-4 The commenter's concern about construction-related traffic safety is noted.

The Preferred Alternative would use main arterials to access the study area, including U.S. Highway 50, Venice Drive, and Tahoe Keys Drive. Hauling and staging would occur within the project area as shown in Exhibit 2-2 in Chapter 2, "Project Description," of this Final EIR/EIS/EIS. The Preferred Alternative does not propose construction staging areas or access points on California Avenue. See Section 3.1.2, "Traffic, Access, and Staging," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for further discussion of construction-related traffic.

I8-5 The commenter's concerns about financial liability associated with flooding are noted.

See Section 3.1.1, “Flooding and Flood Hazards,” in Chapter 3 of this Final EIR/EIS/EIS. The analysis of the proposed project is consistent with CEQA, NEPA and TRPA requirements because the project would not change the existing flood hazards of the surrounding properties. See “Flooding and Flood Hazards,” in Chapter 3, “Master Responses,” of this Final EIR/EIS/EIS. Furthermore, financial responsibility for flood damages is not an issue relating to effects on the environment that requires an analysis under CEQA.I8-6 The commenter’s concerns about the notification process are noted.

As described in Chapter 1, “Introduction,” of this Final EIR/EIS/EIS, the Conservancy, the U.S. Bureau of Reclamation, and TRPA followed CEQA, NEPA, and TRPA requirements on full disclosure, transparency, and due process. See response to Comment AO2-4 for a discussion of the project’s history, planning context, and public outreach.

I8-7 The commenter requests changes to proposed construction access and staging, and financial compensation for potential damages and/or loss of property value resulting from flooding.

As shown in Exhibit 2-2 in Chapter 2, “Project Description,” of this Final EIR/EIS/EIS, the Preferred Alternative does not propose construction staging areas or access points on California Avenue. See Section 3.1.1, “Flooding and Flood Hazards,” in Chapter 3 of this Final EIR/EIS/EIS for further discussion on flooding. The analysis of the proposed project is consistent with CEQA, NEPA and TRPA requirements because the project would not change the existing flood hazards of the surrounding properties. See “Flooding and Flood Hazards,” in Chapter 3, “Master Responses,” of this Final EIR/EIS/EIS. Furthermore, financial responsibility for flood damages is not an issue relating to effects on the environment that requires an analysis under CEQA.

See Section 3.1.2, “Traffic, Access, and Staging,” in Chapter 3 of this Final EIR/EIS/EIS for further discussion of construction-related traffic.

Letter I9

From: sarah chisholm [sarah_chisholm2000@yahoo.com]
Sent: Sunday, April 07, 2013 12:23 PM
To: Carroll, Scott@Tahoe
Subject: Comments on Draft EIR/EIS for Upper Truckee River Marsh

April 7, 2013

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

Dear Mr. Carroll,

My primary concern about the Upper Truckee River Marsh Draft EIR/EIS is dogs. Dogs on the trails, dogs on the beach, dogs chasing wildlife, dogs off leash, dogs "pooping" everywhere (people not picking it up), and dogs harassing visitors.

This winter & spring, I could hardly walk ten feet on the Cove East trail without stepping around (or in, yuk) dog feces. When the snow melted, I took a shovel and spent a half day shoveling all the dog feces off the trail. Your signs do not work. Most dogs are off leash, and people do not pick up after their dogs. The take-home message is that signs do not work, and cannot be considered adequate mitigation for allowing more dogs into the Marsh.

I do not like it when dogs come running up to me barking and growling. My sister, visiting from the Bay Area last year, was bitten by an off-leash dog at Cove East, and the owner was completely unconcerned and more threatening than the dog, which only added insult to injury. I9-1

I do not like it when dogs run up to me from behind and put their dirty wet nose on my hands. I do not like it when off-leash dogs jump on me and/or shove their nose into my crotch. I do not like it when off-leash dogs go running down the beach splashing water on me and my group.

I know that people love their dogs, and not all dogs exhibit bad behavior. But that doesn't mean dogs should be allowed on public trails or in the River Marsh. My strong preference would be that you ban all dogs from CTC property. If you cannot summon the political will to do that, then there should be at least some trails or boardwalks where dogs are not allowed, so those of us who don't want to deal with dogs can enjoy a dog-free experience. And you must actively enforce the rules about leashes and dog poop: your signs do not work!

Please do something about the large number of dogs at Cove East trail and beach, and please do not take any action(s) that will increase the large number of dogs already using the Truckee River Marsh.

Thank you,
Sarah Chisholm
South Lake Tahoe

Letter
I9
Response

Sarah Chisholm
April 7, 2013

I9-1 The commenter's concern about off-leash dogs along trails in the Upper Truckee River Marsh is noted.

See Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for a discussion of animal control services in the study area.

3/27/13

Letter I10

Dear Committy on Environment.

Sorry I misplaced your letter regarding the situation concerning the upper Truckee River and the meadow.

I purchased my home in 1963 + bought it because (partially) the beauty of the view over a stream + the trees which belonged to the Barton Sisters at that time

I see the problem with the residences Bordering the river. I am fortunate I didnot or will not have a problem if the owners of the land give me permission to install a Riparian Wall of Cinder Blocks to stop erosion when the spring melts occur. I am not happy that some one foolishly

I10-1

installed a coffer dam and diverted the H_2O across the meadow that caused the erosion that would have never happened. If I had known I would have dug out the stream to keep a medium amount of erosion. Your action now is 30 years too late. However, I am in favor of putting up a Riparian wall of Riprap or some type of barrier along the ex-bow natural meadow for creating meadows - with permission of land owners. I10-1 cont.

Sorry I am unable to attend your meeting as I am handicapped + 93.

Richard O Cromwell Major USAF Retired
1050 River Dr SLT

received
4/15/13

Letter
I10
Response

Richard Cromwell
April 15, 2013

I10-1 The commenter discusses historic channel erosion and identifies his support for actions to address erosion, including a riparian wall.

As discussed in Section 3.9, "Geomorphology and Water Quality," of the 2013 Draft EIR/EIS/EIS, the Upper Truckee River and Trout Creek have been affected by watershed-scale changes in land use, hydrology, and sediment loads that have degraded the watershed's fluvial geomorphic and ecologic functions. As listed in Section 1.3.2 of the Draft EIR/EIS/EIS, two primary objectives of the project are to "restore natural and self-sustaining river and floodplain processes and functions" and "protect, enhance, and restore naturally functioning habitats." The Preferred Alternative includes an approach to improve physical processes and ecologic function through both active and passive restoration means. The Preferred Alternative also includes various measures to address areas with actively eroding streambanks (e.g., streambank stabilization techniques), as well as to reduce hydraulic stress along the banks during high flows (e.g., reconnecting secondary high-flow channels and lowering floodplains to allow floodplain activation at lower flows).

Letter I11

Public Comment Form

Upper Truckee River and Marsh Restoration Project

AGENCIES: California Tahoe Conservancy, U.S. Bureau of Reclamation, Tahoe Regional Planning Agency (TRPA)

PUBLIC COMMENT PERIOD: Comments on the DEIR/DEIS/DEIS will be accepted throughout the review period in compliance with the time limits mandated by State law and TRPA. Your response should be sent at the earliest possible date, but received no later than **April 8, 2013**.

Oral and written comments, including names and home addresses of respondents, will be made available for public review. Individual respondents may request that we withhold their home address from public disclosure, which will be honored to the extent allowable by law. If you wish to have your name and/or address withheld, you must state this prominently at the beginning of your comment. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public disclosure in their entirety.

SEND COMMENTS TO: All comments will be combined and addressed in the Final EIR/EIS/EIS. It is only necessary to send comments to one agency.

Please submit comments via email to Scott.Carroll@tahoe.ca.gov.

Subject Line: Upper Truckee River and Marsh Restoration Project
(1) Attach comments in an MS Word document
(2) Include commenter's U.S. Postal Service mailing address in MS Word.

Written comments can be sent to the following address:

RECEIVED

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

COMMENTS:

Name: RICHARD DEVRIES
Address: PO BOX 17815 South Lake Tahoe Ca. 96151
Email (optional):

I like the art. 3 east side board walks next to Al Tahoe subdivision, so people will access the meadow via the spring and prevent damage to the muddy meadow. People will always want access to that beach. I11-1

It would be nice to have a bike trail to Meyers/Venice Dr. and Lake East on west side of meadow so as to not have to ride bike down "Rays Blvd". The trail would be behind highland woods and Tahoe Island sub division. I11-2

I am a Al Tahoe subdivision resident / property owner

Letter
I11
Response

Richard DeVries
March 19, 2013

I11-1 The commenter's support for the Alternative 3 eastside access is noted.

The Preferred Alternative does not include construction of additional recreation access on the east side; however, existing user-created trails would continue to provide access. See Chapter 2, "Project Description," of this Final EIR/EIS/EIS for further discussion of the alternative selection process.

I11-2 The commenter's support for a bike trail from Al Tahoe to Venice Drive is noted.

The Preferred Alternative does not include construction of new bicycle trails. See Chapter 2, "Project Description," of this Final EIR/EIS/EIS for further discussion of the alternative selection process.

Letter I12

RECEIVED
TAHOE CONSERVANCY

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

Subject: Comments on Upper Truckee River and Marsh Restoration Project (Project)

Note: Withhold my home address from public disclosure to the extent allowed by law

I am a resident and/or property owner in the Tahoe Island Park 4 subdivision. I believe the Project planning and its environmental impact report (Report) do not adequately address the following possible real impacts to me and my neighborhood:

1. Construction noise in Tahoe Island Park 4 subdivision: this is a quiet residential neighborhood. Use of California Avenue as a haul route, and CTC neighborhood lots for the California Avenue Staging site, will generate abnormal and unacceptable local noise preventing my reasonable use and enjoyment of my home and property. The Report implies this noise could occur at any time, or continuously, from 8 AM to 6:30 PM, daily, for four years. Nevertheless, the Report assesses the short-term noise impact, for all project alternatives, as Less Than Significant, No Mitigation Needed. This finding defies common sense for significant residential impact, and the locations cited in Appendix J of the Report that were analyzed for noise impact do not include any streets in the vicinity of California Avenue or its proposed staging site. I strongly disagree with this finding for this neighborhood and consider the noise impact analysis for this neighborhood inadequate since it does not include any nearby locations.
2. Traffic in Tahoe Island Park 4 subdivision: California Avenue, designated as the only haul route in this subdivision, is one of its narrowest streets. California Avenue is heavily used by residents, people walking their children and pets, pedestrians, and bicyclists. The street is too narrow for large vehicles to pass each other or turn around, or even for normal vehicles to navigate without evasive maneuvers. When cars are parked along it, it is effectively single lane. Yet the Report assesses the short-term potential for conflict between construction traffic, local traffic, pedestrians, and bicycles as Less Than Significant, No Mitigation Needed. For this neighborhood, I strongly disagree with this finding and consider the analysis it is based on to be inadequate. The finding defies common sense, does not seem to address the residential nature of the neighborhood, and the traffic impact assessment discussions in the Report cite only the Al Tahoe, Hidden Woods, and Tahoe Keys Neighborhoods, but not this neighborhood. I12-1
3. Disruption of established neighborhood values in Tahoe Island Park 4 subdivision: the proposed California Ave Staging site makes use of small undeveloped residential lots acquired by the CTC because of, and to prevent damage to, their environmental sensitivity. The neighborhood had a reasonable expectation that they would never be used by the CTC as a construction site for staging heavy equipment and fill materials. The aesthetic fundamental nature of the neighborhood would be devastated for four years by this use. This impact is not recognized or assessed in the Report. I strongly object to use of the subject CTC lots by the Project for this or other construction purposes.

1

4. Neighborhood safety in Tahoe Island Park 4 subdivision: construction activity on the subject CTC lots in conjunction with neighborhood children playing near their homes creates a safety hazard that does not appear to be identified or analyzed in the Report. I strongly object to unnecessary multi-year heavy construction in the neighborhood and feel that the Report has not adequately assessed the impact to the safety of neighborhood children. *Will a four year old neighborhood child not be able to play catch outside his or her home in the summer until he or she is 8?*
5. Increased Flood Risk in Tahoe Island Park 4 subdivision: The models cited in the Report predict no increased residential flood risk as a result of the Project. If the models prove incorrect, no assessment has been included of how expensive the damages to property owners would be or whether the lead Agencies would be responsible, and have the funds, to financially compensate the property owners
6. Neighborhood notification in Tahoe Island Park 4 subdivision: even though my neighborhood is potentially highly impacted by Project construction, I was not directly notified of the Report or public comment period. Even if agency outreach and notification satisfied the letter of the law, it certainly did not satisfy the spirit of notifying impacted parties so they could comment. Few of my neighbors are aware of the possible impacts even now, and there has been little public response to the few recent outreach meetings. I feel the notification process has been inadequate and ineffective, at least near the potential California Ave Staging site.

I12-1 cont.

I believe these and other potential impacts to my neighborhood are excessive, unnecessary, and unacceptable. Therefore, I respectfully request that the preferred alternative and final plans, include the features below. If this isn't done, I respectfully request that additional impact analyses and public comment be undertaken to address the inadequacies cited above from these features.

1. No use of the CTC lots designated as California Ave Staging for any Project construction activities. It is not necessary for either environmental or practical reasons. The CTC has other alternatives that do not require disrupting this, or other, residential neighborhoods.
2. No use of California Ave as a haul route for Project construction activities.
3. No use of any streets or parcels in the Tahoe Island Park 4 subdivision as Project haul routes or staging sites.
4. Locating internal haul routes for river work on the east side of the river to the maximum extent possible to minimize impact to close-by residential neighborhoods which are primarily on the west side of the river.
5. Posting a bond or securing insurance to compensate property owners for damages and loss of property value, if the Project increases residential flood risk and the FEMA 100-year floodplain.

Respectfully submitted,

Name: MARILYN DONN Date: 4/7/13

Address:

2

Letter
I12
Response

Marilyn Donn
April 13, 2013

I12-1 The commenter has concerns about construction activities resulting in increased noise, traffic, disruption of established neighborhood values, neighborhood safety, and increased flood risk in the Tahoe Island Park 4 subdivision. The commenter states that individual residents in the Tahoe Island Park 4 subdivision were not directly notified of public outreach.

See response to Comment Letter I8 for a discussion regarding these concerns.

Letter I13

1651 Mulberry Lane
San Jose CA 95125

October 4, 2011

This letter & map mailed to

Arlo Stockham, Regional Planning Coordinator
Governing Board
Tahoe Regional Planning Agency
Stateline, NV 89449

Dear Members of the Board and Arlo Stockham,

In discussions with Janny Choy, Wendy Jepson, and John Hitchcock, regarding my property, APN 031-103-22, I discovered that the TRPA is currently reviewing Plan Areas and Zoning. We would like to request that you direct the TRPA staff to give particular consideration to this parcel for its potential to be redrawn into its neighboring Plan Area Statement. I13-1

I have owned the property since 1970 and it is located along Highway 50 at Blue Lake Rd adjacent to the Muffler Palace, in the Truckee Marsh Plan Area Statement. I have attached a map of the parcel boundaries, and you will see that my property is a peninsula surrounded by the Sierra Track Commercial Plan Area Statement. I am asking that this parcel be redrawn in the Sierra Track Commercial Plan Area.

Sincerely,

Helen Ebert

cc:
Darrell Harris
Paul Nielson
John Hitchcock
Janny Choy

— also mailed to on 10/17/11

Tahoe Plan Area.png
(622 KB

Letter
I13
Response

Helen Ebert
March 18, 2013

I13-1 The commenter requests information about plan areas and zoning for their property.

This comment is not associated with the Proposed Project and does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

Letter I14

TCM + CASS

541 8051

RECEIVED

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

Subject: Comments on Upper Truckee River and Marsh Restoration Project (Project)

Note: Withhold my home address from public disclosure to the extent allowed by law

I am a resident and/or property owner in the Tahoe Island Park 4 subdivision. I believe the Project planning and its environmental impact report (Report) do not adequately address the following possible real impacts to me and my neighborhood:

1. Construction noise in Tahoe Island Park 4 subdivision: this is a quiet residential neighborhood. Use of California Avenue as a haul route, and CTC neighborhood lots for the California Avenue Staging site, will generate abnormal and unacceptable local noise preventing my reasonable use and enjoyment of my home and property. The Report implies this noise could occur at any time, or continuously, from 8 AM to 6:30 PM, daily, for four years. Nevertheless, the Report assesses the short-term noise impact, for all project alternatives, as Less Than Significant, No Mitigation Needed. This finding defies common sense for significant residential impact, and the locations cited in Appendix J of the Report that were analyzed for noise impact do not include any streets in the vicinity of California Avenue or its proposed staging site. I strongly disagree with this finding for this neighborhood and consider the noise impact analysis for this neighborhood inadequate since it does not include any nearby locations.
2. Traffic in Tahoe Island Park 4 subdivision: California Avenue, designated as the only haul route in this subdivision, is one of its narrowest streets. California Avenue is heavily used by residents, people walking their children and pets, pedestrians, and bicyclists. The street is too narrow for large vehicles to pass each other or turn around, or even for normal vehicles to navigate without evasive maneuvers. When cars are parked along it, it is effectively single lane. Yet the Report assesses the short-term potential for conflict between construction traffic, local traffic, pedestrians, and bicycles as Less Than Significant, No Mitigation Needed. For this neighborhood, I strongly disagree with this finding and consider the analysis it is based on to be inadequate. The finding defies common sense, does not seem to address the residential nature of the neighborhood, and the traffic impact assessment discussions in the Report cite only the Al Tahoe, Hidden Woods, and Tahoe Keys Neighborhoods, but not this neighborhood. I14-1
3. Disruption of established neighborhood values in Tahoe Island Park 4 subdivision: the proposed California Ave Staging site makes use of small undeveloped residential lots acquired by the CTC because of, and to prevent damage to, their environmental sensitivity. The neighborhood had a reasonable expectation that they would never be used by the CTC as a construction site for staging heavy equipment and fill materials. The aesthetic fundamental nature of the neighborhood would be devastated for four years by this use. This impact is not recognized or assessed in the Report. I strongly object to use of the subject CTC lots by the Project for this or other construction purposes.

1

4. Neighborhood safety in Tahoe Island Park 4 subdivision: construction activity on the subject CTC lots in conjunction with neighborhood children playing near their homes creates a safety hazard that does not appear to be identified or analyzed in the Report. I strongly object to unnecessary multi-year heavy construction in the neighborhood and feel that the Report has not adequately assessed the impact to the safety of neighborhood children. *Will a four year old neighborhood child not be able to play catch outside his or her home in the summer until he or she is 8?*
5. Increased Flood Risk in Tahoe Island Park 4 subdivision: The models cited in the Report predict no increased residential flood risk as a result of the Project. If the models prove incorrect, no assessment has been included of how expensive the damages to property owners would be or whether the lead Agencies would be responsible, and have the funds, to financially compensate the property owners
6. Neighborhood notification in Tahoe Island Park 4 subdivision: even though my neighborhood is potentially highly impacted by Project construction, I was not directly notified of the Report or public comment period. Even if agency outreach and notification satisfied the letter of the law, it certainly did not satisfy the spirit of notifying impacted parties so they could comment. Few of my neighbors are aware of the possible impacts even now, and there has been little public response to the few recent outreach meetings. I feel the notification process has been inadequate and ineffective, at least near the potential California Ave Staging site.

I14-1 cont.

I believe these and other potential impacts to my neighborhood are excessive, unnecessary, and unacceptable. Therefore, I respectfully request that the preferred alternative and final plans, include the features below. If this isn't done, I respectfully request that additional impact analyses and public comment be undertaken to address the inadequacies cited above from these features.

1. No use of the CTC lots designated as California Ave Staging for any Project construction activities. It is not necessary for either environmental or practical reasons. The CTC has other alternatives that do not require disrupting this, or other, residential neighborhoods.
2. No use of California Ave as a haul route for Project construction activities.
3. No use of any streets or parcels in the Tahoe Island Park 4 subdivision as Project haul routes or staging sites.
4. Locating internal haul routes for river work on the east side of the river to the maximum extent possible to minimize impact to close-by residential neighborhoods which are primarily on the west side of the river.
5. Posting a bond or securing insurance to compensate property owners for damages and loss of property value, if the Project increases residential flood risk and the FEMA 100-year floodplain.

Respectfully submitted,

Name: Rich Elder Date: 4/8/13

Address:

** Please No[illegible]s the most amount of affected property owners of any single street in your study – Please use alternate plan!! Thank You.

Letter
I14
Response

Rich Elder
April 8, 2013

I14-1 The commenter has concerns about construction activities resulting in increased noise, traffic, disruption of established neighborhood values, neighborhood safety, and increased flood risk in the Tahoe Island Park 4 subdivision. The commenter states that individual residents in the Tahoe Island Park 4 subdivision were not directly notified of public outreach.

See response to Comment Letter I8 for a discussion regarding these concerns.

Letter I15

Jerome Evans
PO Box 7101
South Lake Tahoe, CA 96158

UTR and Marsh Restoration Project

The Upper Truckee River and Marsh Project is certainly one of the most important projects to be undertaken in the Lake Tahoe basin. It promises to be of substantial benefit to the lake, to wildlife on the South Shore, and to residents and visitors alike. Properly done, it should become one of the basin's principal natural attractions.

I do hope that the shoreline boardwalk in Alternative 1 will be included in the project as finally approved. Such a boardwalk will be a major attraction for visitors, provide an important connecting link in the bike trail. and reduce the likelihood of trespassing within the marsh itself. I15-1

This is the sort of project all in our community should support.

Jerome Evans

Letter
I15
Response
Jerome Evans
February 28, 2013

I15-1 The commenter's support for the shoreline boardwalk under Alternative 1 is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

Letter I16

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

Subject: Comments on Upper Truckee River and Marsh Restoration Project (Project)

Note: Withhold my home address from public disclosure to the extent allowed by law

I am a resident and/or property owner in the Tahoe Island Park 4 subdivision. I believe the Project planning and its environmental impact report (Report) do not adequately address the following possible real impacts to me and my neighborhood:

1. Construction noise in Tahoe Island Park 4 subdivision: this is a quiet residential neighborhood. Use of California Avenue as a haul route, and CTC neighborhood lots for the California Avenue Staging site, will generate abnormal and unacceptable local noise preventing my reasonable use and enjoyment of my home and property. The Report implies this noise could occur at any time, or continuously, from 8 AM to 6:30 PM, daily, for four years. Nevertheless, the Report assesses the short-term noise impact, for all project alternatives, as Less Than Significant, No Mitigation Needed. This finding defies common sense for significant residential impact, and the locations cited in Appendix J of the Report that were analyzed for noise impact do not include any streets in the vicinity of California Avenue or its proposed staging site. I strongly disagree with this finding for this neighborhood and consider the noise impact analysis for this neighborhood inadequate since it does not include any nearby locations.
2. Traffic in Tahoe Island Park 4 subdivision: California Avenue, designated as the only haul route in this subdivision, is one of its narrowest streets. California Avenue is heavily used by residents, people walking their children and pets, pedestrians, and bicyclists. The street is too narrow for large vehicles to pass each other or turn around, or even for normal vehicles to navigate without evasive maneuvers. When cars are parked along it, it is effectively single lane. Yet the Report assesses the short-term potential for conflict between construction traffic, local traffic, pedestrians, and bicycles as Less Than Significant, No Mitigation Needed. For this neighborhood, I strongly disagree with this finding and consider the analysis it is based on to be inadequate. The finding defies common sense, does not seem to address the residential nature of the neighborhood, and the traffic impact assessment discussions in the Report cite only the Al Tahoe, Hidden Woods, and Tahoe Keys Neighborhoods, but not this neighborhood. I16-1
3. Disruption of established neighborhood values in Tahoe Island Park 4 subdivision: the proposed California Ave Staging site makes use of small undeveloped residential lots acquired by the CTC because of, and to prevent damage to, their environmental sensitivity. The neighborhood had a reasonable expectation that they would never be used by the CTC as a construction site for staging heavy equipment and fill materials. The aesthetic fundamental nature of the neighborhood would be devastated for four years by this use. This impact is not recognized or assessed in the Report. I strongly object to use of the subject CTC lots by the Project for this or other construction purposes.

1

4. Neighborhood safety in Tahoe Island Park 4 subdivision: construction activity on the subject CTC lots in conjunction with neighborhood children playing near their homes creates a safety hazard that does not appear to be identified or analyzed in the Report. I strongly object to unnecessary multi-year heavy construction in the neighborhood and feel that the Report has not adequately assessed the impact to the safety of neighborhood children. *Will a four year old neighborhood child not be able to play catch outside his or her home in the summer until he or she is 8?*
5. Increased Flood Risk in Tahoe Island Park 4 subdivision: The models cited in the Report predict no increased residential flood risk as a result of the Project. If the models prove incorrect, no assessment has been included of how expensive the damages to property owners would be or whether the lead Agencies would be responsible, and have the funds, to financially compensate the property owners
6. Neighborhood notification in Tahoe Island Park 4 subdivision: even though my neighborhood is potentially highly impacted by Project construction, I was not directly notified of the Report or public comment period. Even if agency outreach and notification satisfied the letter of the law, it certainly did not satisfy the spirit of notifying impacted parties so they could comment. Few of my neighbors are aware of the possible impacts even now, and there has been little public response to the few recent outreach meetings. I feel the notification process has been inadequate and ineffective, at least near the potential California Ave Staging site.

I16-1 cont.

I believe these and other potential impacts to my neighborhood are excessive, unnecessary, and unacceptable. Therefore, I respectfully request that the preferred alternative and final plans, include the features below. If this isn't done, I respectfully request that additional impact analyses and public comment be undertaken to address the inadequacies cited above from these features.

1. No use of the CTC lots designated as California Ave Staging for any Project construction activities. It is not necessary for either environmental or practical reasons. The CTC has other alternatives that do not require disrupting this, or other, residential neighborhoods.
2. No use of California Ave as a haul route for Project construction activities.
3. No use of any streets or parcels in the Tahoe Island Park 4 subdivision as Project haul routes or staging sites.
4. Locating internal haul routes for river work on the east side of the river to the maximum extent possible to minimize impact to close-by residential neighborhoods which are primarily on the west side of the river.
5. Posting a bond or securing insurance to compensate property owners for damages and loss of property value, if the Project increases residential flood risk and the FEMA 100-year floodplain.

Respectfully submitted,

Name: John R Galea Date: 4-8-13

Address:

2

Letter
I16
Response

John R. Galea
April 8, 2013

I16-1 The commenter has concerns about construction activities resulting in increased noise, traffic, disruption of established neighborhood values, neighborhood safety, and increased flood risk in the Tahoe Island Park 4 subdivision. The commenter states that individual residents in the Tahoe Island Park 4 subdivision were not directly notified of public outreach.

See response to Comment Letter I8 for a discussion regarding these concerns.

Letter I17

RECEIVED

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

CA TAHOE CONSERVANCY

Subject: Comments on Upper Truckee River and Marsh Restoration Project (Project)

Note: Withhold my home address from public disclosure to the extent allowed by law

I am a resident and/or property owner in the Tahoe Island Park 4 subdivision. I believe the Project planning and its environmental impact report (Report) do not adequately address the following possible real impacts to me and my neighborhood:

1. Construction noise in Tahoe Island Park 4 subdivision: this is a quiet residential neighborhood. Use of California Avenue as a haul route, and CTC neighborhood lots for the California Avenue Staging site, will generate abnormal and unacceptable local noise preventing my reasonable use and enjoyment of my home and property. The Report implies this noise could occur at any time, or continuously, from 8 AM to 6:30 PM, daily, for four years. Nevertheless, the Report assesses the short-term noise impact, for all project alternatives, as Less Than Significant, No Mitigation Needed. This finding defies common sense for significant residential impact, and the locations cited in Appendix J of the Report that were analyzed for noise impact do not include any streets in the vicinity of California Avenue or its proposed staging site. I strongly disagree with this finding for this neighborhood and consider the noise impact analysis for this neighborhood inadequate since it does not include any nearby locations.
2. Traffic in Tahoe Island Park 4 subdivision: California Avenue, designated as the only haul route in this subdivision, is one of its narrowest streets. California Avenue is heavily used by residents, people walking their children and pets, pedestrians, and bicyclists. The street is too narrow for large vehicles to pass each other or turn around, or even for normal vehicles to navigate without evasive maneuvers. When cars are parked along it, it is effectively single lane. Yet the Report assesses the short-term potential for conflict between construction traffic, local traffic, pedestrians, and bicycles as Less Than Significant, No Mitigation Needed. For this neighborhood, I strongly disagree with this finding and consider the analysis it is based on to be inadequate. The finding defies common sense, does not seem to address the residential nature of the neighborhood, and the traffic impact assessment discussions in the Report cite only the Al Tahoe, Hidden Woods, and Tahoe Keys Neighborhoods, but not this neighborhood. I17-1
3. Disruption of established neighborhood values in Tahoe Island Park 4 subdivision: the proposed California Ave Staging site makes use of small undeveloped residential lots acquired by the CTC because of, and to prevent damage to, their environmental sensitivity. The neighborhood had a reasonable expectation that they would never be used by the CTC as a construction site for staging heavy equipment and fill materials. The aesthetic fundamental nature of the neighborhood would be devastated for four years by this use. This impact is not recognized or assessed in the Report. I strongly object to use of the subject CTC lots by the Project for this or other construction purposes.

1

4. Neighborhood safety in Tahoe Island Park 4 subdivision: construction activity on the subject CTC lots in conjunction with neighborhood children playing near their homes creates a safety hazard that does not appear to be identified or analyzed in the Report. I strongly object to unnecessary multi-year heavy construction in the neighborhood and feel that the Report has not adequately assessed the impact to the safety of neighborhood children. *Will a four year old neighborhood child not be able to play catch outside his or her home in the summer until he or she is 8?*
5. Increased Flood Risk in Tahoe Island Park 4 subdivision: The models cited in the Report predict no increased residential flood risk as a result of the Project. If the models prove incorrect, no assessment has been included of how expensive the damages to property owners would be or whether the lead Agencies would be responsible, and have the funds, to financially compensate the property owners
6. Neighborhood notification in Tahoe Island Park 4 subdivision: even though my neighborhood is potentially highly impacted by Project construction, I was not directly notified of the Report or public comment period. Even if agency outreach and notification satisfied the letter of the law, it certainly did not satisfy the spirit of notifying impacted parties so they could comment. Few of my neighbors are aware of the possible impacts even now, and there has been little public response to the few recent outreach meetings. I feel the notification process has been inadequate and ineffective, at least near the potential California Ave Staging site.

I17-1 cont.

I believe these and other potential impacts to my neighborhood are excessive, unnecessary, and unacceptable. Therefore, I respectfully request that the preferred alternative and final plans, include the features below. If this isn't done, I respectfully request that additional impact analyses and public comment be undertaken to address the inadequacies cited above from these features.

1. No use of the CTC lots designated as California Ave Staging for any Project construction activities. It is not necessary for either environmental or practical reasons. The CTC has other alternatives that do not require disrupting this, or other, residential neighborhoods.
2. No use of California Ave as a haul route for Project construction activities.
3. No use of any streets or parcels in the Tahoe Island Park 4 subdivision as Project haul routes or staging sites.
4. Locating internal haul routes for river work on the east side of the river to the maximum extent possible to minimize impact to close-by residential neighborhoods which are primarily on the west side of the river.
5. Posting a bond or securing insurance to compensate property owners for damages and loss of property value, if the Project increases residential flood risk and the FEMA 100-year floodplain.

Respectfully submitted,

Name: Chris Gallup Date: 4/30/13

Address:

2

Letter
I17
Response

Chris Gallup
April 26, 2013

I17-1 The commenter has concerns about construction activities resulting in increased noise, traffic, disruption of established neighborhood values, neighborhood safety, and increased flood risk in the Tahoe Island Park 4 subdivision. The commenter states that individual residents in the Tahoe Island Park 4 subdivision were not directly notified of public outreach.

See response to Comment Letter I8 for a discussion regarding these concerns.

Letter I18

March 6, 2013

Mr. Scott Carroll, Project Manager
California Tahoe Conservancy
1061 Third Street
South Lake Tahoe CA
96150-3475

Subject: Upper Truckee River & Marsh Restoration and TKPOA maintenance yard roadway

Dear Mr. Carroll,

Thank you for taking the time to meet with me regarding the project referenced above. The Conservancy prepared an excellent presentation regarding alternatives for the restoration project. Thank you for allowing comments on your project and welcoming public opinion and concerns.

Based on review of the four alternatives presented by your office, I am respectfully requesting that alternative number 3 be selected for the project. Reasons for my request are summarized below:

- By allowing the Truckee River to flood more to the east as shown in alternative 3, more of the former river paths and meanders will fill with flood water and the water will be spread out over more acres of grasses and other meadow vegetation.
- Alternative 3 allows more area for the river water to flow slowing river flow velocities; therefore allowing more sediment to be removed before river water enters Lake Tahoe. I18-1
- The Upper Truckee Marsh lies primarily east of the current river path and aerial photographs of the marsh show that the Truckee River once meandered through the east marsh area. Allowing the river to return to its former natural flow channels would allow better removal of sediment and nutrients from the Truckee River before the river water enters Lake Tahoe.
- Alternative 3 is the best choice when consideration is given to those of us who own property in Mt. Tallac Village III. All other alternatives direct flood water flow from the Truckee River toward our subdivision. Flooding is a concern for Mt. Tallac Village III property owners.

In addition to my recommendation that alternative # 3 be selected and implemented for the Upper Truckee River and Marsh Restoration Project, I ask you to mitigate the problems caused by the roadway to the Tahoe Keys Property Owners Association (TKPOA) corporation yard storage area. During times of high water flow in and around the Mt. Tallac Village III subdivision, the TKPOA yard storage road becomes a dam and flood waters back up to the south of the roadway into our subdivision. The roadway caused a serious flooding problem in our subdivision in 1997 because of the back up of water that could not flow past the raised roadway. Boats and high wheeled vehicles were required to bring residents out of our subdivision during the 1997 flood event. I18-2 Perhaps the TKPOA could share in the cost to install culverts under the raised corporation yard roadway to allow flood waters to escape the Mt. Tallac Village III subdivision. The roadway needs to be modified now. The safety of our subdivision residents and guests and protection of our property make it imperative that Conservancy and TKPOA act now to help prevent flooding in the Mt. Tallac Village III subdivision. The raised corporation yard roadway is a flood hazard for our subdivision and must be modified or removed. The Conservancy and TKPOA have a responsibility to property owners in Mt. Tallac Village III to mitigate the flood hazard caused by the raised road.

Thank you for your consideration and for allowing me to express my support and concerns.

John Gonzales
PO Box 51234
Sparks Nevada
89435-1234

775-626-0250
gengm@charter.net
Tahoe property address – 791 Colorado Avenue SLT

Letter
I18
Response

John Gonzales
March 6, 2013

I18-1 The commenter's support for Alternative 3 is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative.

I18-2 The commenter requests restoration of the roadway for the TKPOA storage yard.

The Preferred Alternative includes removal of the TKPOA yard and road, and restoration to meadow habitat, contingent on TKPOA consent.

Letter I19

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

RECEIVED
CA TAHOE CONSERVANCY

Subject: Comments on Upper Truckee River and Marsh Restoration Project (Project)

Note: Withhold my home address from public disclosure to the extent allowed by law

I am a resident and/or property owner in the Tahoe Island Park 4 subdivision. I believe the Project planning and its environmental impact report (Report) do not adequately address the following possible real impacts to me and my neighborhood:

1. Construction noise in Tahoe Island Park 4 subdivision: this is a quiet residential neighborhood. Use of California Avenue as a haul route, and CTC neighborhood lots for the California Avenue Staging site, will generate abnormal and unacceptable local noise preventing my reasonable use and enjoyment of my home and property. The Report implies this noise could occur at any time, or continuously, from 8 AM to 6:30 PM, daily, for four years. Nevertheless, the Report assesses the short-term noise impact, for all project alternatives, as Less Than Significant, No Mitigation Needed. This finding defies common sense for significant residential impact, and the locations cited in Appendix J of the Report that were analyzed for noise impact do not include any streets in the vicinity of California Avenue or its proposed staging site. I strongly disagree with this finding for this neighborhood and consider the noise impact analysis for this neighborhood inadequate since it does not include any nearby locations.
2. Traffic in Tahoe Island Park 4 subdivision: California Avenue, designated as the only haul route in this subdivision, is one of its narrowest streets. California Avenue is heavily used by residents, people walking their children and pets, pedestrians, and bicyclists. The street is too narrow for large vehicles to pass each other or turn around, or even for normal vehicles to navigate without evasive maneuvers. When cars are parked along it, it is effectively single lane. Yet the Report assesses the short-term potential for conflict between construction traffic, local traffic, pedestrians, and bicycles as Less Than Significant, No Mitigation Needed. For this neighborhood, I strongly disagree with this finding and consider the analysis it is based on to be inadequate. The finding defies common sense, does not seem to address the residential nature of the neighborhood, and the traffic impact assessment discussions in the Report cite only the Al Tahoe, Hidden Woods, and Tahoe Keys Neighborhoods, but not this neighborhood. I19-1
3. Disruption of established neighborhood values in Tahoe Island Park 4 subdivision: the proposed California Ave Staging site makes use of small undeveloped residential lots acquired by the CTC because of, and to prevent damage to, their environmental sensitivity. The neighborhood had a reasonable expectation that they would never be used by the CTC as a construction site for staging heavy equipment and fill materials. The aesthetic fundamental nature of the neighborhood would be devastated for four years by this use. This impact is not recognized or assessed in the Report. I strongly object to use of the subject CTC lots by the Project for this or other construction purposes.

1

4. Neighborhood safety in Tahoe Island Park 4 subdivision: construction activity on the subject CTC lots in conjunction with neighborhood children playing near their homes creates a safety hazard that does not appear to be identified or analyzed in the Report. I strongly object to unnecessary multi-year heavy construction in the neighborhood and feel that the Report has not adequately assessed the impact to the safety of neighborhood children. *Will a four year old neighborhood child not be able to play catch outside his or her home in the summer until he or she is 8?*
5. Increased Flood Risk in Tahoe Island Park 4 subdivision: The models cited in the Report predict no increased residential flood risk as a result of the Project. If the models prove incorrect, no assessment has been included of how expensive the damages to property owners would be or whether the lead Agencies would be responsible, and have the funds, to financially compensate the property owners
6. Neighborhood notification in Tahoe Island Park 4 subdivision: even though my neighborhood is potentially highly impacted by Project construction, I was not directly notified of the Report or public comment period. Even if agency outreach and notification satisfied the letter of the law, it certainly did not satisfy the spirit of notifying impacted parties so they could comment. Few of my neighbors are aware of the possible impacts even now, and there has been little public response to the few recent outreach meetings. I feel the notification process has been inadequate and ineffective, at least near the potential California Ave Staging site.

I19-1 cont.

I believe these and other potential impacts to my neighborhood are excessive, unnecessary, and unacceptable. Therefore, I respectfully request that the preferred alternative and final plans, include the features below. If this isn't done, I respectfully request that additional impact analyses and public comment be undertaken to address the inadequacies cited above from these features.

1. No use of the CTC lots designated as California Ave Staging for any Project construction activities. It is not necessary for either environmental or practical reasons. The CTC has other alternatives that do not require disrupting this, or other, residential neighborhoods.
2. No use of California Ave as a haul route for Project construction activities.
3. No use of any streets or parcels in the Tahoe Island Park 4 subdivision as Project haul routes or staging sites.
4. Locating internal haul routes for river work on the east side of the river to the maximum extent possible to minimize impact to close-by residential neighborhoods which are primarily on the west side of the river.
5. Posting a bond or securing insurance to compensate property owners for damages and loss of property value, if the Project increases residential flood risk and the FEMA 100-year floodplain.

Respectfully submitted,

Name: Ryan Gorabski and Catalina Gorabski

Date: 4.6.2013

Address:

2

Letter
I19
Response

Ryan & Cataline Goralski
April 6, 2013

I19-1 The commenters have concerns about construction activities resulting in increased noise, traffic, disruption of established neighborhood values, neighborhood safety, and increased flood risk in the Tahoe Island Park 4 subdivision. The commenters state that individual residents in the Tahoe Island Park 4 subdivision were not directly notified of public outreach.

See response to Comment Letter I8 for a discussion regarding these concerns.

Letter I20

March 13, 2013

Attn: Tahoe Conservancy and TRPA

I attended the March 13th meeting on the Truckee Marsh Restoration Project at the TRPA headquarters. Both the presenters were thorough and concise in their presentations.

As a long time Tahoe Keys resident (my apologies for that) I have come to understand the impact that such an ill-advised project has had on a very important and fragile ecosystem.

I walk the Cove East trail several times each week and also utilize the trail on the east side of the Upper Truckee Marsh. I am a birdwatcher, kayaker and nature lover so I treasure this oasis in the middle of our developed town. I20-1

I am definitely in favor of restoring the area further even if it curtails the access I currently enjoy. The objective is to return to a healthier and more natural habitat and increased human access would work against this goal.

I myself have organized an informal clean-up at Cove East and a group of about 10 of us took away more than a dozen large bags of trash. I frequently pick up trash during my regular walks and even while kayaking. It's an unfortunate reality that more people will bring more trash. I also observe many dogs off leash and owners allowing them to run through the fence into the marsh area. Dog waste is a problem despite the signs and waste bags available. I20-2

After reviewing the alternatives I would support a hybrid plan of restoration, creating the inset floodplain from Alternative 4 and connecting the lagoon to the river and minimal public access as directed in Alternative 2. Limited human access is necessary for the success of the restoration. I20-3

I vehemently oppose the access presented in Alternative I with the beach bike bath and bridge. I would support a limited improvement such as a boardwalk on the periphery at the east side of the marsh and perhaps an observation point on each side of the marsh. I20-4

No matter which alternative is chosen I think these concerns must be addressed:

- Timing of project (bulldozers) to not disturb the spring nesting season of birds in the marsh I20-5
- Impact of public access on disturbing wildlife, increased trash and dogs/people entering the restricted area I20-6
- Keeping sight of the main goal of natural habitat restoration, not a Disneyland experience I20-7

Please share this input with the other agencies and planners involved in this project. I thank you for your time in considering my concerns.

Sincerely,

Alice Grulich-Jones
PO Box 8555
S Lake Tahoe CA 96158

Letter
I20
Response

Alice Grulich-Jones
March 13, 2013

I20-1 The commenter's support for restoration of the study area is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative.

I20-2 The commenter's concern about dogs and littering in the study area is noted.

See Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for a discussion of trash pickup and animal control services in the study area.

I20-3 The commenter's support for a hybrid alternative including the inset floodplain under Alternative 4 and minimal public access under Alternative 2 is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative.

I20-4 The commenter's opposition to Alternative 1 is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative.

I20-5 The commenter states that the timing of project construction should not disturb the spring nesting season.

As described in Section 3.4, "Biological Resources," of the 2013 Draft EIR/EIS/EIS, construction activities that would occur in suitable habitat during the nesting season (April 1 through August 31) would require a qualified wildlife biologist to conduct focused surveys for active nest sites of the yellow warbler, willow flycatcher, waterfowl, and long-eared owl (see page 3.4-52 of the Draft EIR/EIS/EIS).

I20-6 The commenter's concerns about the impacts of public access on wildlife and increased trash, dogs, and people in the study area are noted.

See Section 3.1.4, “Management,” in Chapter 3, “Master Responses,” of this Final EIR/EIS/EIS for a discussion of trash pickup and animal control services in the study area.

I20-7 The commenter’s support for restoration of the study area is noted.

As discussed in Chapter 2, “Project Description,” of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh’s east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, “Selecting a Preferred Alternative,” of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative.

Letter I21

Upper Truckee River and Marsh Restoration Project

California Tahoe Conservancy
Attn: Scott Carroll
1061 Third Street
So. Lake Tahoe, CA 96150

Comments From:
Lynn Harriman
2535 Cold Creek Trail
So. Lake Tahoe, CA 96150

lynnhxsc@gmail.com

I wish to commend the CTC and other agencies involved with the Upper Truckee marsh projects to this point. Before completion of the Cove East portion of this project, I was very uncertain that it would be an improvement from the damages of the past. However, time has proved me to be wrong. My husband and I visit either the Cove East side or the Upper Truckee marsh from Al Tahoe tract every week and we are never disappointed at the wildlife we are able to observe. We have noticed the improvement in the quality and quantity of our observations since the first phase of the Cove East project was completed and the spring dog ban was put in to effect. Thank you for a job well done. I21-1

Now the next phase of the project is beginning and I have looked at the maps and alternatives that are proposed during the workshop on February 27th. I realize none of these alternatives are set in stone. They are ideas to get discussion moving and the thought process going.

I ask you to make sure you do not add more human impact to this fragile space. I realize you have to keep public access on the Cove East side and I enjoy using that very much but the other side is not too developed and I do not believe it should be. I realize some meadow protection and erosion control needs doing but don't make it too grand. As much as I would love to ride my bike on a boardwalk across the beach and mouth of the Truckee River and on through the keys and around the entire south shore, it would not be good for the wildlife, or the plants. Such a path would bring in more people, trash, dogs, poop, noise, trampling the Tahoe yellow cress, disruption of nesting birds, illegal overnights, campfires, and parking madness at one end or the other. Law enforcement would have to patrol more. These problems already exist but on a small manageable scale. Keep it low key and keep the problems down to what a limited budget can control. I21-2

I know that getting the Truckee River to flow freely and out of the channel is the major goal of the project and it is a good one. I am just not sure how feasible the horizontal flow/gradient controllers are going to be. I am a white water boater and my experience with these types of barriers is that they can be or become dangerous as debris from spring runoffs builds up. Some of them make hydraulics that are dangerous to the family in their k-mart raft or me in my whitewater kayak. People need to be warned about what those I21-3

barriers may mean to their fun. **This needs to be clear in the planning phase**. Are there any types of barriers that will accomplish the goal of spreading out the flow but allow continued boating or is take out going to have to be higher up with no way to float out to the lake? People will probably just carry boats around barriers. Will this be good for the marsh? The Stand-Up-Paddle board people are quickly making their presence known in the marsh, going upstream and down. Is there to be a "mouth" of the river or is it going to be blocked so the water spreads out and is filtered? Is there to be no direct access from the lake to the marsh? The rental companies need to know what to tell people. While I love floating through the willows, climbing over beaver dams and getting out in to the middle of the marsh in my little boat, as more people are doing the same, the marsh will be impacted negatively. My first trip down the Truckee River from the highway 50 bridge in Meyers was when I was about 8 years old in 1969. Only a few people had this adventure back then but now there are more people. I am sad to think I would have to give up this yearly joy but we have to do what will be best for the wetland habitat and wildlife. The impact of people in the marsh needs to be considered if we are going to do anything that will make the edges more attractive to more people. I21-3 cont.

All of the alternative plans have view points and observation points on them. They are not all located in the very best spots. More input on where those places should be and what they should look like is needed. I would love to see raised observation platforms (like at the Visitors Center at Taylor Creek or Sacramento Wildlife Refuge). This would get the viewer up above the willows overlooking the entire 360 degree marsh and lake view without needing to put people **in** to the marsh. I21-4

Please try to keep this gem of a place a little bit of a secret for us Tahoe locals to enjoy and newcomers to have to work to discover. Keep it simple. But more importantly, we have an opportunity to improve wetland habitat to encourage the return of migratory birds and marsh plants that have almost been lost. A wetland corridor to the lake with minimal human presence is a habitat that has vanished on Lake Tahoe. We have a chance to restore a piece of it now. I21-5

Thanks for taking the time to read my comments. Keep up the good works. You are making a difference in the health, beauty, and future for Lake Tahoe.

Lynn Harriman

Letter
I21
Response

Lynn Harriman
March 10, 2013

I21-1 The commenter's support for the previous projects in the study area is noted.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I21-2 The commenter's support for restoration and limiting public access is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative. See Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for a discussion of trash pickup, animal control services, and police protection services in the study area.

I21-3 The commenter is concerned about flow/gradient controls on boaters and kayakers. The commenter also asks whether the mouth to the river will be blocked and whether there will be direct access from the lake to the marsh. The commenter is concerned about the impact of public access on the study area.

The Preferred Alternative would make some modifications near the mouth of the river and reconstruct a more natural connection between the lagoon and the river. These changes would not be adverse for nonmotorized water recreation relative to existing conditions or the No Action Alternative. Access during normal to high-water conditions would be increased, and access during low-water conditions would be similar to present access with safer access for non-motorized use with the sailing lagoon connected to the river. The planned vertical and lateral grade controls/bed stabilization features would be designed to limit degradation, not to promote aggradation, so they would not create net barriers or blockage to low flow relative to existing conditions. The Preferred Alternative's pilot channel inlet and the vertical and lateral barriers between the pilot channel and the backfilled channel would also emphasize features that are buried and limit the potential for debris accumulation, because their hydraulic and geomorphic functions need relatively smooth transitions to ensure flow and sediment passage. Within the remnant channel sections of the middle of the marsh, the natural complexity of multi-thread channel segments, beaver ponds, and backwaters could continue to exist, but may be modified by natural geomorphic processes to define one or more distinct flow-through segments.

I21-4 The commenter's request for more input on the observation points is noted.

See responses to Comments AO2-4 and I8-6 for a discussion of the project's history, planning context, and public outreach.

I21-5 The commenter's support for restoration is noted.

Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to

selecting recreation and restoration components of the Preferred Alternative. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

Letter I22

From: Judith Hildinger [jhildinger@sbcglobal.net]
Sent: Monday, April 08, 2013 3:12 PM
To: Carroll, Scott@Tahoe
Subject: Comments UTRM DRAFT EIR

Scott.Carroll@tahoe.ca.gov
April 8, 2013

California Tahoe Conservancy
1061 Third St.
South Lake Tahoe, CA 96158

Dear Scott,

I am writing to comment on the proposed alternatives for restoration of the Upper Truckee River Marsh.

I am commenting primarily to register strong opposition to Alternative 1, particularly the proposed recreation infrastructure. The Conservancy's work should be primarily one of restoring the marsh, not expanding recreational activities. Building a parking lot, bike trails, and two bridges would bring hundreds of additional people into the marsh annually and is not in the best interests of conservation goals. I22-1

Amongst other concerns, a bridged access could

--lead to such concerns as: will the bikepaths (as well as the parking lot) eventually require safety lighting and thus add yet another lightsource to an area that currently provides starry dark skies? I22-2
(adding an ongoing maintenance issue for Conservancy staff?)

-- potentially detract from the boaters' viewshed; elevated manmade structures in the marsh are contrary to restoration. I22-3

-- allow even more invasive species pathways into the sensitive marsh area. I22-4

--impact surrounding neighborhoods with additional through traffic and parking concerns. I22-5

I understand the need for some educational signage, pedestrian trails, and viewpoints, but not to the extent suggested in Alternative 1. I22-6

To summarize, from the executive summary itself: "The purpose of the proposed action is to restore natural geomorphic processes and ecological functions in this lowest reach of the Upper Truckee River and the surrounding marsh to improve ecological values of the restoration area and help reduce the river's discharge of nutrients and sediment that diminish Lake Tahoe's clarity."

Please keep in mind this primary purpose rather than expansion of recreational infrastructure. Also keep in mind that recreational infrastructure requires a huge annual commitment of maintenance funds. Does the Conservancy have resources and strategic direction to provide for maintenance and upkeep of any infrastructure built and associated 'public management' required? I22-7

Thank you for the opportunity to provide comments.

Sincerely,

Judith Hildinger
PO Box 8897
So. Lake Tahoe, CA 96158

Letter
I22
Response

Judith Hildinger
April 8, 2013

I22-1 The commenter's opposition to Alternative 1 is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I22-2 The commenter is concerned about additional recreation facilities requiring nighttime lighting.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate infrastructure on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. The Preferred Alternative does not include new bike trails or parking that would need nighttime lighting.

I22-3 The commenter is concerned that a bridged access will detract from the viewshed for boaters.

See response to Comment AO5-6.

I22-4 The commenter is concerned that the bridge and boardwalk proposed under Alternative 1 will result in additional invasive species within the marsh. Additionally, the commenter cites increased bridge access in Alternative 1 as a potential risk factor for the spread of aquatic invasive species.

Impacts of the alternatives on the spread of invasive species are discussed in Section 3.4, "Biological Resources: Vegetation and Wildlife," of the 2013 Draft EIR/EIS/EIS. Impact 3.4-2 (Alt. 1), "Introduction and Spread of Invasive Plants by Recreational Activities," states that under Alternative 1, there would be an expected increase in the number of visitors to the study area, and these visitors could contribute to the introduction and spread of invasive plants by dispersing these plants and disturbing habitat. The Preferred Alternative does not include the bridge and boardwalk.

I22-5 The commenter is concerned that a bridged access will result in additional traffic for adjacent neighborhoods.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative does not include construction of bridged access to the east side of the marsh. Traffic impacts were discussed in Section 3.16, "Traffic, Circulation and Parking," of the 2013 Draft EIR/EIS/EIS.

I22-6 The commenter's opposition to Alternative 1 is noted.

As discussed in Chapter 2, “Project Description,” of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh’s east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, “Selecting a Preferred Alternative,” of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I22-7 The commenter reiterates the primary purpose of the proposed project and requests consideration of the annual cost of maintaining additional recreation facilities.

The Preferred Alternative does not include these additional recreation elements. The recreation elements of the Preferred Alternative are expected to require similar maintenance costs as under existing conditions. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

Letter I23

Subject: Upper Truckee River and Marsh Restoration Project
From: Anjanette Hoefer

Dear Mr. Scott Carroll,

Thank you for the opportunity to comment on the Upper Truckee River and March Restoration Project DEIR/DEIS.

After reviewing the volumes of documents for the DEIR/DEIS I support Alternative 3 to restore the river channel and its connection to the floodplain. This is truly a unique opportunity to restore the current channelized river and allow the river to naturally flood the marsh. I23-1

I do not support any recreation improves along the marsh and the currently undeveloped beach areas. The current recreation opportunities in these areas are dispersed and should stay that way. Recreation opportunities in the project study area include numerous existing developed activities for the public. Since no alternatives propose to develop parking and sanitation facilities, any recreation improvements should be limited to Cove East Beach. I23-2

Thank you for considering these comments,

Anjanette Hoefer

Letter
I23
Response

Anjanette Hoefer
April 7, 2013

I23-1 The commenter's support for Alternative 3 is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I23-2 The commenter's opposition to constructing additional recreation facilities is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation components of the Preferred Alternative. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

Letter I24

Comments on the Upper Truckee River and Marsh Restoration Project

Monday, April 8, 2013

Scott Carroll
California Tahoe Conservancy
1061 Third Street
SLT, Ca. 96150

NOTE: Please withhold my address from public disclosure to the extent allowed by law.

We are residents and property owners on California Avenue in South Lake Tahoe. We live here full time and have done so at this residence since 1998. At one point during the summer of 2012 we heard about the Truckee River Project that is currently on the drawing board. At that time we did not hear any news as to the timeline for the project. Until yesterday, we were still completely unaware of this projects future and whether this was just a vision or a reality. We travel frequently in the winter and just returned home a few days ago and fortunately were notified by our anxious neighbors about the possibility of staging areas for this project to be located right here on California and Michael avenue's. We were also advised of the possibility of a truck route for removal of material (not to mention the additional traffic by employees, equipment, etc) on California Avenue for a four year term. Please tell us this is not a fact!! We are stunned at the prospect!! We are completely appalled that we were never notified of this possibility for a project of this magnitude right in our front yard. How can this be???? We certainly hope that all of the agencies involved in this project are considering the impact this would have on our quiet neighborhood and the hardships it would bare on the residence here. We observed the Cove East project a few years ago and if the trucks that will be used for this project are at all like the trucks that will be used in the upcoming project, please advise us in advance so we can sell our home and move before this begins. We will not sit in our yard and watch this type of traffic, noise and dust for some of our later years in life. There is an option to use the Venice Drive East ingress and egress for this work without the impact to those of us here in Tahoe Island Park 4. Another issue to consider is the many bicycles and pedestrians that use Michael and California Ave to stay off of and away from Tahoe Keys Blvd traffic. If you knew how many people used these narrow streets, the number of cars that park along them and the impact large trucks would have on everybodies safety, we know you would agree that these streets are not the best choice for the use you have intended. Please put yourself in our living room for a moment. When the UPS truck drives by, our windows shake. When the snowplow drives by, our whole house shakes. This is tolerable as infrequently as it occurs. Imagine now a large dump truck driving by all day, every day. This we can't imagine. How about you? I24-1 I24-2

Please consider the commercial, Venice Drive East staging area and truck route over this quiet, residential area. Or please find a safer alternative.

We would appreciate hearing from you on what we can expect in the future in regards to this project.

Regards

Harley and Tammy Hoy

Letter
I24
Response

Harley & Tammy Hoy
April 8, 2013

I24-1 The commenters states that no noticing of the project was provided.

The Project mailing list was developed by obtaining the most recent County Assessor's information as well as contact information provided through outreach over the life of the project. The commenter's address on the list developed for noticing. For privacy purposes the address has been withheld in this Final EIR/EIS/EIS. See responses to Comments AO2-4 and I8-6 for a discussion of the project's history, planning context, and public outreach.

I24-2 The commenters have concerns about construction noise associated with the use of California Avenue and Michael Avenue for staging and access.

As shown in Exhibit 2-2 in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative does not propose construction staging areas or access points on California Avenue and Michael Avenue. See Section 3.1.3, "Construction Noise," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for further discussion of construction-related noise.

Letter I25

RECEIVED
CA TAHOE CONSERVANCY

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

Subject: Comments on Upper Truckee River and Marsh Restoration Project (Project)

Note: Withhold my home address from public disclosure to the extent allowed by law

---

I am a resident and/or property owner in the Tahoe Island Park 4 subdivision. I believe the Project planning and its environmental impact report (Report) do not adequately address the following possible real impacts to me and my neighborhood:

1. Construction noise in Tahoe Island Park 4 subdivision: this is a quiet residential neighborhood. Use of California Avenue as a haul route, and CTC neighborhood lots for the California Avenue Staging site, will generate abnormal and unacceptable local noise preventing my reasonable use and enjoyment of my home and property. The Report implies this noise could occur at any time, or continuously, from 8 AM to 6:30 PM, daily, for four years. Nevertheless, the Report assesses the short-term noise impact, for all project alternatives, as Less Than Significant, No Mitigation Needed. This finding defies common sense for significant residential impact, and the locations cited in Appendix J of the Report that were analyzed for noise impact do not include any streets in the vicinity of California Avenue or its proposed staging site. I strongly disagree with this finding for this neighborhood and consider the noise impact analysis for this neighborhood inadequate since it does not include any nearby locations.
2. Traffic in Tahoe Island Park 4 subdivision: California Avenue, designated as the only haul route in this subdivision, is one of its narrowest streets. California Avenue is heavily used by residents, people walking their children and pets, pedestrians, and bicyclists. The street is too narrow for large vehicles to pass each other or turn around, or even for normal vehicles to navigate without evasive maneuvers. When cars are parked along it, it is effectively single lane. Yet the Report assesses the short-term potential for conflict between construction traffic, local traffic, pedestrians, and bicycles as Less Than Significant, No Mitigation Needed. For this neighborhood, I strongly disagree with this finding and consider the analysis it is based on to be inadequate. The finding defies common sense, does not seem to address the residential nature of the neighborhood, and the traffic impact assessment discussions in the Report cite only the Al Tahoe, Hidden Woods, and Tahoe Keys Neighborhoods, but not this neighborhood. I25-1
3. Disruption of established neighborhood values in Tahoe Island Park 4 subdivision: the proposed California Ave Staging site makes use of small undeveloped residential lots acquired by the CTC because of, and to prevent damage to, their environmental sensitivity. The neighborhood had a reasonable expectation that they would never be used by the CTC as a construction site for staging heavy equipment and fill materials. The aesthetic fundamental nature of the neighborhood would be devastated for four years by this use. This impact is not recognized or assessed in the Report. I strongly object to use of the subject CTC lots by the Project for this or other construction purposes.

1

4. Neighborhood safety in Tahoe Island Park 4 subdivision: construction activity on the subject CTC lots in conjunction with neighborhood children playing near their homes creates a safety hazard that does not appear to be identified or analyzed in the Report. I strongly object to unnecessary multi-year heavy construction in the neighborhood and feel that the Report has not adequately assessed the impact to the safety of neighborhood children. *Will a four year old neighborhood child not be able to play catch outside his or her home in the summer until he or she is 8?*
5. Increased Flood Risk in Tahoe Island Park 4 subdivision: The models cited in the Report predict no increased residential flood risk as a result of the Project. If the models prove incorrect, no assessment has been included of how expensive the damages to property owners would be or whether the lead Agencies would be responsible, and have the funds, to financially compensate the property owners
6. Neighborhood notification in Tahoe Island Park 4 subdivision: even though my neighborhood is potentially highly impacted by Project construction, I was not directly notified of the Report or public comment period. Even if agency outreach and notification satisfied the letter of the law, it certainly did not satisfy the spirit of notifying impacted parties so they could comment. Few of my neighbors are aware of the possible impacts even now, and there has been little public response to the few recent outreach meetings. I feel the notification process has been inadequate and ineffective, at least near the potential California Ave Staging site.

I25-1 cont.

I believe these and other potential impacts to my neighborhood are excessive, unnecessary, and unacceptable. Therefore, I respectfully request that the preferred alternative and final plans, include the features below. If this isn't done, I respectfully request that additional impact analyses and public comment be undertaken to address the inadequacies cited above from these features.

1. No use of the CTC lots designated as California Ave Staging for any Project construction activities. It is not necessary for either environmental or practical reasons. The CTC has other alternatives that do not require disrupting this, or other, residential neighborhoods.
2. No use of California Ave as a haul route for Project construction activities.
3. No use of any streets or parcels in the Tahoe Island Park 4 subdivision as Project haul routes or staging sites.
4. Locating internal haul routes for river work on the east side of the river to the maximum extent possible to minimize impact to close-by residential neighborhoods which are primarily on the west side of the river.
5. Posting a bond or securing insurance to compensate property owners for damages and loss of property value, if the Project increases residential flood risk and the FEMA 100-year floodplain.

Respectfully submitted,

Name: HARLEY HOY Date: 4-7-13

Address:

2

Letter
I25
Response

Harley Hoy
April 7, 2013

I25-1 The commenter has concerns about construction activities resulting in increased noise, traffic, disruption of established neighborhood values, neighborhood safety, and increased flood risk in the Tahoe Island Park 4 subdivision. The commenter states that individual residents in the Tahoe Island Park 4 subdivision were not directly notified of public outreach.

See response to Comment Letter I8 for a discussion regarding these concerns.

Letter I26

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

Subject: Comments on Upper Truckee River and Marsh Restoration Project (Project)

Note: Withhold my home address from public disclosure to the extent allowed by law

I am a resident and/or property owner in the Tahoe Island Park 4 subdivision. I believe the Project planning and its environmental impact report (Report) do not adequately address the following possible real impacts to me and my neighborhood:

1. Construction noise in Tahoe Island Park 4 subdivision: this is a quiet residential neighborhood. Use of California Avenue as a haul route, and CTC neighborhood lots for the California Avenue Staging site, will generate abnormal and unacceptable local noise preventing my reasonable use and enjoyment of my home and property. The Report implies this noise could occur at any time, or continuously, from 8 AM to 6:30 PM, daily, for four years. Nevertheless, the Report assesses the short-term noise impact, for all project alternatives, as Less Than Significant, No Mitigation Needed. This finding defies common sense for significant residential impact, and the locations cited in Appendix J of the Report that were analyzed for noise impact do not include any streets in the vicinity of California Avenue or its proposed staging site. I strongly disagree with this finding for this neighborhood and consider the noise impact analysis for this neighborhood inadequate since it does not include any nearby locations.
2. Traffic in Tahoe Island Park 4 subdivision: California Avenue, designated as the only haul route in this subdivision, is one of its narrowest streets. California Avenue is heavily used by residents, people walking their children and pets, pedestrians, and bicyclists. The street is too narrow for large vehicles to pass each other or turn around, or even for normal vehicles to navigate without evasive maneuvers. When cars are parked along it, it is effectively single lane. Yet the Report assesses the short-term potential for conflict between construction traffic, local traffic, pedestrians, and bicycles as Less Than Significant, No Mitigation Needed. For this neighborhood, I strongly disagree with this finding and consider the analysis it is based on to be inadequate. The finding defies common sense, does not seem to address the residential nature of the neighborhood, and the traffic impact assessment discussions in the Report cite only the Al Tahoe, Hidden Woods, and Tahoe Keys Neighborhoods, but not this neighborhood. I26-1
3. Disruption of established neighborhood values in Tahoe Island Park 4 subdivision: the proposed California Ave Staging site makes use of small undeveloped residential lots acquired by the CTC because of, and to prevent damage to, their environmental sensitivity. The neighborhood had a reasonable expectation that they would never be used by the CTC as a construction site for staging heavy equipment and fill materials. The aesthetic fundamental nature of the neighborhood would be devastated for four years by this use. This impact is not recognized or assessed in the Report. I strongly object to use of the subject CTC lots by the Project for this or other construction purposes.

1

4. Neighborhood safety in Tahoe Island Park 4 subdivision: construction activity on the subject CTC lots in conjunction with neighborhood children playing near their homes creates a safety hazard that does not appear to be identified or analyzed in the Report. I strongly object to unnecessary multi-year heavy construction in the neighborhood and feel that the Report has not adequately assessed the impact to the safety of neighborhood children. *Will a four year old neighborhood child not be able to play catch outside his or her home in the summer until he or she is 8?*
5. Increased Flood Risk in Tahoe Island Park 4 subdivision: The models cited in the Report predict no increased residential flood risk as a result of the Project. If the models prove incorrect, no assessment has been included of how expensive the damages to property owners would be or whether the lead Agencies would be responsible, and have the funds, to financially compensate the property owners
6. Neighborhood notification in Tahoe Island Park 4 subdivision: even though my neighborhood is potentially highly impacted by Project construction, I was not directly notified of the Report or public comment period. Even if agency outreach and notification satisfied the letter of the law, it certainly did not satisfy the spirit of notifying impacted parties so they could comment. Few of my neighbors are aware of the possible impacts even now, and there has been little public response to the few recent outreach meetings. I feel the notification process has been inadequate and ineffective, at least near the potential California Ave Staging site.

I26-1 cont.

I believe these and other potential impacts to my neighborhood are excessive, unnecessary, and unacceptable. Therefore, I respectfully request that the preferred alternative and final plans, include the features below. If this isn't done, I respectfully request that additional impact analyses and public comment be undertaken to address the inadequacies cited above from these features.

1. No use of the CTC lots designated as California Ave Staging for any Project construction activities. It is not necessary for either environmental or practical reasons. The CTC has other alternatives that do not require disrupting this, or other, residential neighborhoods.
2. No use of California Ave as a haul route for Project construction activities.
3. No use of any streets or parcels in the Tahoe Island Park 4 subdivision as Project haul routes or staging sites.
4. Locating internal haul routes for river work on the east side of the river to the maximum extent possible to minimize impact to close-by residential neighborhoods which are primarily on the west side of the river.
5. Posting a bond or securing insurance to compensate property owners for damages and loss of property value, if the Project increases residential flood risk and the FEMA 100-year floodplain.

Respectfully submitted,

Name: TAMARA HOU Tamara Hou Date: 4/7/13

Address:

2

Letter
I26
Response

Tamara Hoy
April 8, 2013

I26-1 The commenter has concerns about construction activities resulting in increased noise, traffic, disruption of established neighborhood values, neighborhood safety, and increased flood risk in the Tahoe Island Park 4 subdivision. The commenter states that individual residents in the Tahoe Island Park 4 subdivision were not directly notified of public outreach.

See response to Comment Letter I8 for a discussion regarding these concerns.

Letter I27

RECEIVED
CA TAHOE CONSERVANCY

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

Subject: Comments on Upper Truckee River and Marsh Restoration Project (Project)

Note: Withhold my home address from public disclosure to the extent allowed by law

I am a resident and/or property owner in the Tahoe Island Park 4 subdivision. I believe the Project planning and its environmental impact report (Report) do not adequately address the following possible real impacts to me and my neighborhood:

1. Construction noise in Tahoe Island Park 4 subdivision: this is a quiet residential neighborhood. Use of California Avenue as a haul route, and CTC neighborhood lots for the California Avenue Staging site, will generate abnormal and unacceptable local noise preventing my reasonable use and enjoyment of my home and property. The Report implies this noise could occur at any time, or continuously, from 8 AM to 6:30 PM, daily, for four years. Nevertheless, the Report assesses the short-term noise impact, for all project alternatives, as Less Than Significant, No Mitigation Needed. This finding defies common sense for significant residential impact, and the locations cited in Appendix J of the Report that were analyzed for noise impact do not include any streets in the vicinity of California Avenue or its proposed staging site. I strongly disagree with this finding for this neighborhood and consider the noise impact analysis for this neighborhood inadequate since it does not include any nearby locations.
2. Traffic in Tahoe Island Park 4 subdivision: California Avenue, designated as the only haul route in this subdivision, is one of its narrowest streets. California Avenue is heavily used by residents, people walking their children and pets, pedestrians, and bicyclists. The street is too narrow for large vehicles to pass each other or turn around, or even for normal vehicles to navigate without evasive maneuvers. When cars are parked along it, it is effectively single lane. Yet the Report assesses the short-term potential for conflict between construction traffic, local traffic, pedestrians, and bicycles as Less Than Significant, No Mitigation Needed. For this neighborhood, I strongly disagree with this finding and consider the analysis it is based on to be inadequate. The finding defies common sense, does not seem to address the residential nature of the neighborhood, and the traffic impact assessment discussions in the Report cite only the Al Tahoe, Hidden Woods, and Tahoe Keys Neighborhoods, but not this neighborhood. I27-1
3. Disruption of established neighborhood values in Tahoe Island Park 4 subdivision: the proposed California Ave Staging site makes use of small undeveloped residential lots acquired by the CTC because of, and to prevent damage to, their environmental sensitivity. The neighborhood had a reasonable expectation that they would never be used by the CTC as a construction site for staging heavy equipment and fill materials. The aesthetic fundamental nature of the neighborhood would be devastated for four years by this use. This impact is not recognized or assessed in the Report. I strongly object to use of the subject CTC lots by the Project for this or other construction purposes.

1

4. Neighborhood safety in Tahoe Island Park 4 subdivision: construction activity on the subject CTC lots in conjunction with neighborhood children playing near their homes creates a safety hazard that does not appear to be identified or analyzed in the Report. I strongly object to unnecessary multi-year heavy construction in the neighborhood and feel that the Report has not adequately assessed the impact to the safety of neighborhood children. *Will a four year old neighborhood child not be able to play catch outside his or her home in the summer until he or she is 8?*
5. Increased Flood Risk in Tahoe Island Park 4 subdivision: The models cited in the Report predict no increased residential flood risk as a result of the Project. If the models prove incorrect, no assessment has been included of how expensive the damages to property owners would be or whether the lead Agencies would be responsible, and have the funds, to financially compensate the property owners
6. Neighborhood notification in Tahoe Island Park 4 subdivision: even though my neighborhood is potentially highly impacted by Project construction, I was not directly notified of the Report or public comment period. Even if agency outreach and notification satisfied the letter of the law, it certainly did not satisfy the spirit of notifying impacted parties so they could comment. Few of my neighbors are aware of the possible impacts even now, and there has been little public response to the few recent outreach meetings. I feel the notification process has been inadequate and ineffective, at least near the potential California Ave Staging site.

I27-1 cont.

I believe these and other potential impacts to my neighborhood are excessive, unnecessary, and unacceptable. Therefore, I respectfully request that the preferred alternative and final plans, include the features below. If this isn't done, I respectfully request that additional impact analyses and public comment be undertaken to address the inadequacies cited above from these features.

1. No use of the CTC lots designated as California Ave Staging for any Project construction activities. It is not necessary for either environmental or practical reasons. The CTC has other alternatives that do not require disrupting this, or other, residential neighborhoods.
2. No use of California Ave as a haul route for Project construction activities.
3. No use of any streets or parcels in the Tahoe Island Park 4 subdivision as Project haul routes or staging sites.
4. Locating internal haul routes for river work on the east side of the river to the maximum extent possible to minimize impact to close-by residential neighborhoods which are primarily on the west side of the river.
5. Posting a bond or securing insurance to compensate property owners for damages and loss of property value, if the Project increases residential flood risk and the FEMA 100-year floodplain.

Respectfully submitted,

Name: Donna Tikker Date: 4/6/13 4/16/13

Address:

2

Letter
I27
Response

? Hughes
April 6, 2013

I27-1 The commenter has concerns about construction activities resulting in increased noise, traffic, disruption of established neighborhood values, neighborhood safety, and increased flood risk in the Tahoe Island Park 4 subdivision. The commenter states that individual residents in the Tahoe Island Park 4 subdivision were not directly notified of public outreach.

See response to Comment Letter I8 for a discussion regarding these concerns.

Letter I28

From: Mark Johnson [markyboy57@yahoo.com]
Sent: Monday, March 11, 2013 1:09 PM
To: Carroll, Scott@Tahoe
Subject: Upper Truckee Marsh restoration project

Hello, As for someone who has a residence on El Dorado Ave, I am concerned with adding bike paths on the meadow. Not because I don't want a path down at the bottom of my property, but because of the added traffic and parking on El Dorado Ave. My preference would be for leaving the Marsh as is and only to improve the channeling of the creeks to improve clarity in the lake. I28-1 I28-2

Thanks
Mark Johnson
700 El Dorado Ave.

Letter
I28
Response

Mark Johnson
March 11, 2013

I28-1 The commenter is concerned about the traffic and parking on El Dorado Avenue associated with constructing bike paths.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate infrastructure on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. In addition, the Conservancy would continue to manage and reduce the impacts of recreational use.

I28-2 The commenter's support for only improving the river channels is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

Letter I29

RECEIVED
CA TAHOE CONSERVANCY

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

Subject: Comments on Upper Truckee River and Marsh Restoration Project (Project)

Note: Withhold my home address from public disclosure to the extent allowed by law

I am a resident and/or property owner in the Tahoe Island Park 4 subdivision. I believe the Project planning and its environmental impact report (Report) do not adequately address the following possible real impacts to me and my neighborhood:

1. Construction noise in Tahoe Island Park 4 subdivision: this is a quiet residential neighborhood. Use of California Avenue as a haul route, and CTC neighborhood lots for the California Avenue Staging site, will generate abnormal and unacceptable local noise preventing my reasonable use and enjoyment of my home and property. The Report implies this noise could occur at any time, or continuously, from 8 AM to 6:30 PM, daily, for four years. Nevertheless, the Report assesses the short-term noise impact, for all project alternatives, as Less Than Significant, No Mitigation Needed. This finding defies common sense for significant residential impact, and the locations cited in Appendix J of the Report that were analyzed for noise impact do not include any streets in the vicinity of California Avenue or its proposed staging site. I strongly disagree with this finding for this neighborhood and consider the noise impact analysis for this neighborhood inadequate since it does not include any nearby locations.
2. Traffic in Tahoe Island Park 4 subdivision: California Avenue, designated as the only haul route in this subdivision, is one of its narrowest streets. California Avenue is heavily used by residents, people walking their children and pets, pedestrians, and bicyclists. The street is too narrow for large vehicles to pass each other or turn around, or even for normal vehicles to navigate without evasive maneuvers. When cars are parked along it, it is effectively single lane. Yet the Report assesses the short-term potential for conflict between construction traffic, local traffic, pedestrians, and bicycles as Less Than Significant, No Mitigation Needed. For this neighborhood, I strongly disagree with this finding and consider the analysis it is based on to be inadequate. The finding defies common sense, does not seem to address the residential nature of the neighborhood, and the traffic impact assessment discussions in the Report cite only the Al Tahoe, Hidden Woods, and Tahoe Keys Neighborhoods, but not this neighborhood. I29-1
3. Disruption of established neighborhood values in Tahoe Island Park 4 subdivision: the proposed California Ave Staging site makes use of small undeveloped residential lots acquired by the CTC because of, and to prevent damage to, their environmental sensitivity. The neighborhood had a reasonable expectation that they would never be used by the CTC as a construction site for staging heavy equipment and fill materials. The aesthetic fundamental nature of the neighborhood would be devastated for four years by this use. This impact is not recognized or assessed in the Report. I strongly object to use of the subject CTC lots by the Project for this or other construction purposes.

1

4. Neighborhood safety in Tahoe Island Park 4 subdivision: construction activity on the subject CTC lots in conjunction with neighborhood children playing near their homes creates a safety hazard that does not appear to be identified or analyzed in the Report. I strongly object to unnecessary multi-year heavy construction in the neighborhood and feel that the Report has not adequately assessed the impact to the safety of neighborhood children. *Will a four year old neighborhood child not be able to play catch outside his or her home in the summer until he or she is 8?*
5. Increased Flood Risk in Tahoe Island Park 4 subdivision: The models cited in the Report predict no increased residential flood risk as a result of the Project. If the models prove incorrect, no assessment has been included of how expensive the damages to property owners would be or whether the lead Agencies would be responsible, and have the funds, to financially compensate the property owners
6. Neighborhood notification in Tahoe Island Park 4 subdivision: even though my neighborhood is potentially highly impacted by Project construction, I was not directly notified of the Report or public comment period. Even if agency outreach and notification satisfied the letter of the law, it certainly did not satisfy the spirit of notifying impacted parties so they could comment. Few of my neighbors are aware of the possible impacts even now, and there has been little public response to the few recent outreach meetings. I feel the notification process has been inadequate and ineffective, at least near the potential California Ave Staging site.

I29-1 cont.

I believe these and other potential impacts to my neighborhood are excessive, unnecessary, and unacceptable. Therefore, I respectfully request that the preferred alternative and final plans, include the features below. If this isn't done, I respectfully request that additional impact analyses and public comment be undertaken to address the inadequacies cited above from these features.

1. No use of the CTC lots designated as California Ave Staging for any Project construction activities. It is not necessary for either environmental or practical reasons. The CTC has other alternatives that do not require disrupting this, or other, residential neighborhoods.
2. No use of California Ave as a haul route for Project construction activities.
3. No use of any streets or parcels in the Tahoe Island Park 4 subdivision as Project haul routes or staging sites.
4. Locating internal haul routes for river work on the east side of the river to the maximum extent possible to minimize impact to close-by residential neighborhoods which are primarily on the west side of the river.
5. Posting a bond or securing insurance to compensate property owners for damages and loss of property value, if the Project increases residential flood risk and the FEMA 100-year floodplain.

Respectfully submitted,

Name: GARY P. JONES Date: 4/7/13

Address:

2

Letter
I29
Response

Gary Jones
April 7, 2013

I29-1 The commenter has concerns about construction activities resulting in increased noise, traffic, disruption of established neighborhood values, neighborhood safety, and increased flood risk in the Tahoe Island Park 4 subdivision. The commenter states that individual residents in the Tahoe Island Park 4 subdivision were not directly notified of public outreach.

See response to Comment Letter I8 for a discussion regarding these concerns.

Letter I30

Hand Delivered
MAR 1 2013
CA Conservancy

RECEIVED
MAR - 5 2013
CA TAHOE CONSERVANCY

Box 18802
South Lake Tahoe, CA. 96151
March 3, 2013

TO WHOM IT MAY CONCERN:

Thank you for the opportunity to comment on the Upper Truckee River and Marsh Restoration Project.

I own property at 2331 Lake Tahoe Blvd on Highway 50 and the back of my property will be marsh land affected by the projects you are proposing. It is my understanding you have 4 projects you are considering. Several questions have entered my mind since receiving your letter. I understand the reasons for attempting to restore the marsh to its natural state and prevent sediment from entering the Lake. It is important for the conservation of our Lake. What is concerning me is the amount of flooding that may occur if we have heavy spring rains or heavy winter snows. The Truckee River project that occurred behind my home (which took almost 4 years to complete) flooded the marsh behind this Lake Tahoe Blvd. property. The past two years have been nearly drought years as far as water is concerned. I am concerned that "returning the marsh to its natural state" will lose control of where the water goes. If we have heavy rains or snows, it could cause flooding on Highway 50 and local businesses, not to mention overloading the drainage system in place. I30-1

Sincerely,

Joanne Jones

Letter
I30
Response

Joanne Jones
March 5, 2013

I30-1 The commenter is concerned about increased flooding from implementation of the project.

An updated discussion of existing and potential flood hazards in provided in Section 3.1.1, "Flooding and Flood Hazards," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS.

Letter I31

Public Comment Form

Upper Truckee River and Marsh Restoration Project

AGENCIES: California Tahoe Conservancy, U.S. Bureau of Reclamation, Tahoe Regional Planning Agency (TRPA)

PUBLIC COMMENT PERIOD: Comments on the DEIR/DEIS/DEIS will be accepted throughout the review period in compliance with the time limits mandated by State law and TRPA. Your response should be sent at the earliest possible date, but received no later than **April 8, 2013**.

Oral and written comments, including names and home addresses of respondents, will be made available for public review. Individual respondents may request that we withhold their home address from public disclosure, which will be honored to the extent allowable by law. If you wish to have your name and/or address withheld, you must state this prominently at the beginning of your comment. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public disclosure in their entirety.

SEND COMMENTS TO: All comments will be combined and addressed in the Final EIR/EIS/EIS. It is only necessary to send comments to one agency.

Please submit comments via email to Scott.Carroll@tahoe.ca.gov.

Subject Line: Upper Truckee River and Marsh Restoration Project
(1) Attach comments in an MS Word document
(2) Include commenter's U.S. Postal Service mailing address in MS Word.

Written comments can be sent to the following address:

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

COMMENTS:
Name: Jordans & Foudys
Address: Springwood, Highland Woods SLT
Email (optional): bobbyjordan@yahoo.com

We like:

- a bike trail across lakefront (Barton/Osgood) connecting Al Tahoe & Keiko if one could be constructed without harming Tahoe Yellow Cress — I31-1
- returning flow of Upper Truckee River to its "natural flow" if it is available — I31-2
- We don't feel a bike ~~to~~ or pedestrian trail should be installed around treed area where "cultural evidence" could be disturbed — I31-3

Thank you for accepting our comments

Letter
I31
Response

Jordans & Foudys
April 10, 2013

I31-1 The commenter's support for a bike trail across Barton Beach if it can be constructed without affecting the yellow cress is noted.

Potential impacts on Tahoe yellow cress are discussed in Section 3.4, "Biological Resources: Vegetation and Wildlife," of the 2013 Draft EIR/EIS/EIS. The Preferred Alternative does not include the bridge and boardwalk.

I31-2 The commenter's support for restoring flows to the Truckee River is noted.

Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I31-3 The commenter's opposition of constructing a trail that would disturb cultural resources is noted.

Potential impacts on cultural resources are discussed in Section 3.3, "Archaeological and Historic Resources," of the 2013 Draft EIR/EIS/EIS. See response to Comment Letter AO12 for additional information.

Letter I32

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

Subject: Comments on Upper Truckee River and Marsh Restoration Project (Project)

Note: Withhold my home address from public disclosure to the extent allowed by law

I am a resident and/or property owner in the Tahoe Island Park 4 subdivision. I believe the Project planning and its environmental impact report (Report) do not adequately address the following possible real impacts to me and my neighborhood:

1. Construction noise in Tahoe Island Park 4 subdivision: this is a quiet residential neighborhood. Use of California Avenue as a haul route, and CTC neighborhood lots for the California Avenue Staging site, will generate abnormal and unacceptable local noise preventing my reasonable use and enjoyment of my home and property. The Report implies this noise could occur at any time, or continuously, from 8 AM to 6:30 PM, daily, for four years. Nevertheless, the Report assesses the short-term noise impact, for all project alternatives, as Less Than Significant, No Mitigation Needed. This finding defies common sense for significant residential impact, and the locations cited in Appendix J of the Report that were analyzed for noise impact do not include any streets in the vicinity of California Avenue or its proposed staging site. I strongly disagree with this finding for this neighborhood and consider the noise impact analysis for this neighborhood inadequate since it does not include any nearby locations.
2. Traffic in Tahoe Island Park 4 subdivision: California Avenue, designated as the only haul route in this subdivision, is one of its narrowest streets. California Avenue is heavily used by residents, people walking their children and pets, pedestrians, and bicyclists. The street is too narrow for large vehicles to pass each other or turn around, or even for normal vehicles to navigate without evasive maneuvers. When cars are parked along it, it is effectively single lane. Yet the Report assesses the short-term potential for conflict between construction traffic, local traffic, pedestrians, and bicycles as Less Than Significant, No Mitigation Needed. For this neighborhood, I strongly disagree with this finding and consider the analysis it is based on to be inadequate. The finding defies common sense, does not seem to address the residential nature of the neighborhood, and the traffic impact assessment discussions in the Report cite only the Al Tahoe, Hidden Woods, and Tahoe Keys Neighborhoods, but not this neighborhood. I32-1
3. Disruption of established neighborhood values in Tahoe Island Park 4 subdivision: the proposed California Ave Staging site makes use of small undeveloped residential lots acquired by the CTC because of, and to prevent damage to, their environmental sensitivity. The neighborhood had a reasonable expectation that they would never be used by the CTC as a construction site for staging heavy equipment and fill materials. The aesthetic fundamental nature of the neighborhood would be devastated for four years by this use. This impact is not recognized or assessed in the Report. I strongly object to use of the subject CTC lots by the Project for this or other construction purposes.

1

4. Neighborhood safety in Tahoe Island Park 4 subdivision: construction activity on the subject CTC lots in conjunction with neighborhood children playing near their homes creates a safety hazard that does not appear to be identified or analyzed in the Report. I strongly object to unnecessary multi-year heavy construction in the neighborhood and feel that the Report has not adequately assessed the impact to the safety of neighborhood children. *Will a four year old neighborhood child not be able to play catch outside his or her home in the summer until he or she is 8?*
5. Increased Flood Risk in Tahoe Island Park 4 subdivision: The models cited in the Report predict no increased residential flood risk as a result of the Project. If the models prove incorrect, no assessment has been included of how expensive the damages to property owners would be or whether the lead Agencies would be responsible, and have the funds, to financially compensate the property owners
6. Neighborhood notification in Tahoe Island Park 4 subdivision: even though my neighborhood is potentially highly impacted by Project construction, I was not directly notified of the Report or public comment period. Even if agency outreach and notification satisfied the letter of the law, it certainly did not satisfy the spirit of notifying impacted parties so they could comment. Few of my neighbors are aware of the possible impacts even now, and there has been little public response to the few recent outreach meetings. I feel the notification process has been inadequate and ineffective, at least near the potential California Ave Staging site. I32-1 cont.

I believe these and other potential impacts to my neighborhood are excessive, unnecessary, and unacceptable. Therefore, I respectfully request that the preferred alternative and final plans, include the features below. If this isn't done, I respectfully request that additional impact analyses and public comment be undertaken to address the inadequacies cited above from these features.

1. No use of the CTC lots designated as California Ave Staging for any Project construction activities. It is not necessary for either environmental or practical reasons. The CTC has other alternatives that do not require disrupting this, or other, residential neighborhoods.
2. No use of California Ave as a haul route for Project construction activities.
3. No use of any streets or parcels in the Tahoe Island Park 4 subdivision as Project haul routes or staging sites.
4. Locating internal haul routes for river work on the east side of the river to the maximum extent possible to minimize impact to close-by residential neighborhoods which are primarily on the west side of the river.
5. Posting a bond or securing insurance to compensate property owners for damages and loss of property value, if the Project increases residential flood risk and the FEMA 100-year floodplain.

Respectfully submitted,

Scott Karpinen Date: 4-8-13

2

Letter
I32
Response

Scott Karpinen
April 8, 2013

I32-1 The commenter has concerns about construction activities resulting in increased noise, traffic, disruption of established neighborhood values, neighborhood safety, and increased flood risk in the Tahoe Island Park 4 subdivision. The commenter states that individual residents in the Tahoe Island Park 4 subdivision were not directly notified of public outreach.

See response to Comment Letter I8 for a discussion regarding these concerns.

Letter I33

March 20, 2013

RECEIVED
CA TAHOE CONSERVANCY

Mr. Scott Carroll, Project Manager
California Tahoe Conservancy
1061 Third Street
South Lake Tahoe CA
96150-3475

Subject: Upper Truckee River & Marsh Restoration and TKPOA maintenance yard roadway

Dear Mr. Carroll,

Thank you for taking input regarding the project referenced above. I have read your material and choices regarding alternatives for the restoration project. Thank you for allowing comments on your project and welcoming public opinion and concerns.

Based on review of the four alternatives presented by your office, I am respectfully requesting that alternative number 3 be selected for the project. Reasons for my request are summarized below:

1 By allowing the Truckee River to flood more to the east as shown in alternative 3, more of the former river paths and meanders will fill with flood water and the water will be spread out over more acres of grasses and other meadow vegetation.

2 Alternative 3 allows more area for the river water to flow slowing river flow velocities; therefore allowing more sediment to be removed before river water enters Lake Tahoe.

3 The Upper Truckee Marsh lies primarily east of the current river path and aerial photographs of the marsh show that the Truckee River once meandered through the east marsh area. Allowing the river to return to its former natural flow channels would allow better removal of sediment and nutrients from the Truckee River before the river water enters Lake Tahoe.

4 Alternative 3 is the best choice when consideration is given to those of us who own property on Michael Dr. north of Colorado St and Mt. Tallac Village III. All other alternatives direct flood water flow from the Truckee River toward our subdivision. Flooding is a concern for Michael Dr. and Mt. Tallac Village III property owners.

I33-1

In addition to my recommendation that alternative # 3 be selected and implemented for the Upper Truckee River and Marsh Restoration Project, I ask you to mitigate the problems caused by the roadway to the Tahoe Keys Property Owners Association (TKPOA) corporation yard storage area. During times of high water flow in and around the Mt. Tallac Village III subdivision and the homes north of Colorado St. on Michael Dr., the TKPOA yard storage road becomes a dam and flood waters back up to the west of the roadway into this area. The

I33-2

roadway caused a serious flooding problem in 1997 because of the backup of water that could not flow past the above grade roadway. The existing drainage is furnished by a small culvert that becomes blocked by brush and debris. Perhaps the TKPOA could share in the cost to install box culverts under the raised corporation yard roadway to allow flood waters to escape this area. The roadway needs to be modified or demolished now. The safety of this area's residents and guests and protection of our property make it imperative that Conservancy and TKPOA act now to help prevent flooding in the Michael Dr. area and Mt. Tallac Village III subdivision. The raised corporation yard roadway is a flood hazard for our property and must be modified or removed. The Conservancy and TKPOA have a responsibility to property owners on Michael Dr. and Mt. Tallac Village III to mitigate the flood hazard caused by the raised road and corporate storage yard. I33-2 cont.

Thank you for your consideration and for allowing me to express my support and concerns.

Thomas and Martha Keating
161 Plantation Dr.
Carson City NV 89703

Tahoe property address – 701 Michael Dr.

Letter
I33
Response

Thomas & Martha Keating
March 21, 2013

I33-1 The commenters' support for Alternative 3 is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I33-2 The commenters request that the project include modifications to or removal of the roadway for the TKPOA storage yard to alleviate localized drainage and flood problems.

See response to Comment I18-2 for further discussion of the TKPOA Corporation Yard and road restoration. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

Letter I34

RECEIVED
CA TAHOE CONSERVANCY

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

Subject: Comments on Upper Truckee River and Marsh Restoration Project (Project)

Note: Withhold my home address from public disclosure to the extent allowed by law

I am a resident and/or property owner in the Tahoe Island Park 4 subdivision. I believe the Project planning and its environmental impact report (Report) do not adequately address the following possible real impacts to me and my neighborhood:

1. Construction noise in Tahoe Island Park 4 subdivision: this is a quiet residential neighborhood. Use of California Avenue as a haul route, and CTC neighborhood lots for the California Avenue Staging site, will generate abnormal and unacceptable local noise preventing my reasonable use and enjoyment of my home and property. The Report implies this noise could occur at any time, or continuously, from 8 AM to 6:30 PM, daily, for four years. Nevertheless, the Report assesses the short-term noise impact, for all project alternatives, as Less Than Significant, No Mitigation Needed. This finding defies common sense for significant residential impact, and the locations cited in Appendix J of the Report that were analyzed for noise impact do not include any streets in the vicinity of California Avenue or its proposed staging site. I strongly disagree with this finding for this neighborhood and consider the noise impact analysis for this neighborhood inadequate since it does not include any nearby locations.
2. Traffic in Tahoe Island Park 4 subdivision: California Avenue, designated as the only haul route in this subdivision, is one of its narrowest streets. California Avenue is heavily used by residents, people walking their children and pets, pedestrians, and bicyclists. The street is too narrow for large vehicles to pass each other or turn around, or even for normal vehicles to navigate without evasive maneuvers. When cars are parked along it, it is effectively single lane. Yet the Report assesses the short-term potential for conflict between construction traffic, local traffic, pedestrians, and bicycles as Less Than Significant, No Mitigation Needed. For this neighborhood, I strongly disagree with this finding and consider the analysis it is based on to be inadequate. The finding defies common sense, does not seem to address the residential nature of the neighborhood, and the traffic impact assessment discussions in the Report cite only the Al Tahoe, Hidden Woods, and Tahoe Keys Neighborhoods, but not this neighborhood. I34-1
3. Disruption of established neighborhood values in Tahoe Island Park 4 subdivision: the proposed California Ave Staging site makes use of small undeveloped residential lots acquired by the CTC because of, and to prevent damage to, their environmental sensitivity. The neighborhood had a reasonable expectation that they would never be used by the CTC as a construction site for staging heavy equipment and fill materials. The aesthetic fundamental nature of the neighborhood would be devastated for four years by this use. This impact is not recognized or assessed in the Report. I strongly object to use of the subject CTC lots by the Project for this or other construction purposes.

1

4. Neighborhood safety in Tahoe Island Park 4 subdivision: construction activity on the subject CTC lots in conjunction with neighborhood children playing near their homes creates a safety hazard that does not appear to be identified or analyzed in the Report. I strongly object to unnecessary multi-year heavy construction in the neighborhood and feel that the Report has not adequately assessed the impact to the safety of neighborhood children. *Will a four year old neighborhood child not be able to play catch outside his or her home in the summer until he or she is 8?*
5. Increased Flood Risk in Tahoe Island Park 4 subdivision: The models cited in the Report predict no increased residential flood risk as a result of the Project. If the models prove incorrect, no assessment has been included of how expensive the damages to property owners would be or whether the lead Agencies would be responsible, and have the funds, to financially compensate the property owners
6. Neighborhood notification in Tahoe Island Park 4 subdivision: even though my neighborhood is potentially highly impacted by Project construction, I was not directly notified of the Report or public comment period. Even if agency outreach and notification satisfied the letter of the law, it certainly did not satisfy the spirit of notifying impacted parties so they could comment. Few of my neighbors are aware of the possible impacts even now, and there has been little public response to the few recent outreach meetings. I feel the notification process has been inadequate and ineffective, at least near the potential California Ave Staging site.

I34-1 cont.

I believe these and other potential impacts to my neighborhood are excessive, unnecessary, and unacceptable. Therefore, I respectfully request that the preferred alternative and final plans, include the features below. If this isn't done, I respectfully request that additional impact analyses and public comment be undertaken to address the inadequacies cited above from these features.

1. No use of the CTC lots designated as California Ave Staging for any Project construction activities. It is not necessary for either environmental or practical reasons. The CTC has other alternatives that do not require disrupting this, or other, residential neighborhoods.
2. No use of California Ave as a haul route for Project construction activities.
3. No use of any streets or parcels in the Tahoe Island Park 4 subdivision as Project haul routes or staging sites.
4. Locating internal haul routes for river work on the east side of the river to the maximum extent possible to minimize impact to close-by residential neighborhoods which are primarily on the west side of the river.
5. Posting a bond or securing insurance to compensate property owners for damages and loss of property value, if the Project increases residential flood risk and the FEMA 100-year floodplain.

Respectfully submitted,

Name: Rick Kniesel Date: 4-7-13

Address:

2

Letter
I34
Response

Rick Kniesec
April 7, 2013

I34-1 The commenter has concerns about construction activities resulting in increased noise, traffic, disruption of established neighborhood values, neighborhood safety, and increased flood risk in the Tahoe Island Park 4 subdivision. The commenter states that individual residents in the Tahoe Island Park 4 subdivision were not directly notified of public outreach.

See response to Comment Letter I8 for a discussion regarding these concerns.

Letter I35

Page 3 – Additional comments for:

California Tahoe Conservancy
ATTN: Scott carroll
1061 Third st
South Lake Tahoe, CA 96150

Subject: Comments on Upper Truckee Rive and Marsh Restoration Project (Project)

Note: Withhold my home address from public disclosure to the extent allowed by law

As a resident and property owner in the Tahoe Island Park 4 subdivision, in addition to pages 1 and 2 attached regarding the inadequacy of addressing the previously stated possible real impacts to me and my neighborhood I'd like to add the following concerns:

More water in the Project area means more breeding ground for mosquitoes. Any increase in the mosquito population not only creates additional nuisance while trying to enjoy outdoor activities, but also directly increases the health risks associated with mosquito-borne diseases.

In the United States, Mosquitoes spread several types of encephalitis. They also transmit heart worms to cats and dogs.

We already know as it has been well documented that there have been several dead birds found in our area over the past few summers that tested positive for West Nile Virus. More mosquitoes only increase our chance of exposure for both humans as well as our beloved animals. I35-1

What plans if any are there to control the inevitable increase in mosquito population? This is not a short term problem, as it will remain a problem for as many years as there are springs and summers.

What impact will it be to tax payers? Will it be considered as part of the Grant funding? What happens if grant funding runs out in our state that is already fiscally challenged? Would mosquito abatement, if any is granted, just fade away?

I believe that river restoration might be beneficial closer down by the mouth, and I may be supportive to restricting the project to that area. However, I do not believe that the impact that the project would have directly to California Ave and other State Street residents is worth the cost that I should have to bear as a tax paying citizen - either short term or long term. I35-2

Thank you for your consideration.

Linda Kosciolek [signature] dated 4/11/13

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

Subject: Comments on Upper Truckee River and Marsh Restoration Project (Project)

Note: Withhold my home address from public disclosure to the extent allowed by law

I am a resident and/or property owner in the Tahoe Island Park 4 subdivision. I believe the Project planning and its environmental impact report (Report) do not adequately address the following possible real impacts to me and my neighborhood:

1. Construction noise in Tahoe Island Park 4 subdivision: this is a quiet residential neighborhood. Use of California Avenue as a haul route, and CTC neighborhood lots for the California Avenue Staging site, will generate abnormal and unacceptable local noise preventing my reasonable use and enjoyment of my home and property. The Report implies this noise could occur at any time, or continuously, from 8 AM to 6:30 PM, daily, for four years. Nevertheless, the Report assesses the short-term noise impact, for all project alternatives, as Less Than Significant, No Mitigation Needed. This finding defies common sense for significant residential impact, and the locations cited in Appendix J of the Report that were analyzed for noise impact do not include any streets in the vicinity of California Avenue or its proposed staging site. I strongly disagree with this finding for this neighborhood and consider the noise impact analysis for this neighborhood inadequate since it does not include any nearby locations.
2. Traffic in Tahoe Island Park 4 subdivision: California Avenue, designated as the only haul route in this subdivision, is one of its narrowest streets. California Avenue is heavily used by residents, people walking their children and pets, pedestrians, and bicyclists. The street is too narrow for large vehicles to pass each other or turn around, or even for normal vehicles to navigate without evasive maneuvers. When cars are parked along it, it is effectively single lane. Yet the Report assesses the short-term potential for conflict between construction traffic, local traffic, pedestrians, and bicycles as Less Than Significant, No Mitigation Needed. For this neighborhood, I strongly disagree with this finding and consider the analysis it is based on to be inadequate. The finding defies common sense, does not seem to address the residential nature of the neighborhood, and the traffic impact assessment discussions in the Report cite only the Al Tahoe, Hidden Woods, and Tahoe Keys Neighborhoods, but not this neighborhood. I35-3
3. Disruption of established neighborhood values in Tahoe Island Park 4 subdivision: the proposed California Ave Staging site makes use of small undeveloped residential lots acquired by the CTC because of, and to prevent damage to, their environmental sensitivity. The neighborhood had a reasonable expectation that they would never be used by the CTC as a construction site for staging heavy equipment and fill materials. The aesthetic fundamental nature of the neighborhood would be devastated for four years by this use. This impact is not recognized or assessed in the Report. I strongly object to use of the subject CTC lots by the Project for this or other construction purposes.

1

4. Neighborhood safety in Tahoe Island Park 4 subdivision: construction activity on the subject CTC lots in conjunction with neighborhood children playing near their homes creates a safety hazard that does not appear to be identified or analyzed in the Report. I strongly object to unnecessary multi-year heavy construction in the neighborhood and feel that the Report has not adequately assessed the impact to the safety of neighborhood children. *Will a four year old neighborhood child not be able to play catch outside his or her home in the summer until he or she is 8?*
5. Increased Flood Risk in Tahoe Island Park 4 subdivision: The models cited in the Report predict no increased residential flood risk as a result of the Project. If the models prove incorrect, no assessment has been included of how expensive the damages to property owners would be or whether the lead Agencies would be responsible, and have the funds, to financially compensate the property owners
6. Neighborhood notification in Tahoe Island Park 4 subdivision: even though my neighborhood is potentially highly impacted by Project construction, ~~I was not directly notified of the Report or public comment period~~. Even if agency outreach and notification satisfied the letter of the law, it certainly did not satisfy the spirit of notifying impacted parties so they could comment. Few of my neighbors are aware of the possible impacts even now, and there has been little public response to the few recent outreach meetings. I feel the notification process has been inadequate and ineffective, at least near the potential California Ave Staging site.

I did receive notification by mail, but not to the heavy impact planned for California Ave. SK LK

I believe these and other potential impacts to my neighborhood are excessive, unnecessary, and unacceptable. Therefore, I respectfully request that the preferred alternative and final plans, include the features below. If this isn't done, I respectfully request that additional impact analyses and public comment be undertaken to address the inadequacies cited above from these features. I35-3 cont.

1. No use of the CTC lots designated as California Ave Staging for any Project construction activities. It is not necessary for either environmental or practical reasons. The CTC has other alternatives that do not require disrupting this, or other, residential neighborhoods.
2. No use of California Ave as a haul route for Project construction activities.
3. No use of any streets or parcels in the Tahoe Island Park 4 subdivision as Project haul routes or staging sites.
4. Locating internal haul routes for river work on the east side of the river to the maximum extent possible to minimize impact to close-by residential neighborhoods which are primarily on the west side of the river.
5. Posting a bond or securing insurance to compensate property owners for damages and loss of property value, if the Project increases residential flood risk and the FEMA 100-year floodplain.

Respectfully submitted

Name: LINDA Kosciolek
Linda Kosciolek

Date: 4/6/13

Address: 23
SO

2

Letter
I35
Response

Linda Kosciolek
April 7, 2013

I35-1 The commenter has concerns about increases in mosquito-borne diseases and the plans to control the mosquito population.

See response to Comment I4-4. In addition, see Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for further discussion of mosquito control.

I35-2 The commenter's concern about the impact of the project on residents on California Avenue and State Street is noted.

See response to Comment Letter I8 for a discussion regarding these concerns.

I35-3 The commenter has concerns about construction activities resulting in increased noise, traffic, disruption of established neighborhood values, neighborhood safety, and increased flood risk in the Tahoe Island Park 4 subdivision. The commenter states that individual residents in the Tahoe Island Park 4 subdivision were not directly notified of public outreach.

See response to Comment Letter I8 for a discussion regarding these concerns.

Letter I36

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

Subject: Comments on Upper Truckee River and Marsh Restoration Project (Project)

Note: Withhold my home address from public disclosure to the extent allowed by law

I am a resident and/or property owner in the Tahoe Island Park 4 subdivision. I believe the Project planning and its environmental impact report (Report) do not adequately address the following possible real impacts to me and my neighborhood:

1. Construction noise in Tahoe Island Park 4 subdivision: this is a quiet residential neighborhood. Use of California Avenue as a haul route, and CTC neighborhood lots for the California Avenue Staging site, will generate abnormal and unacceptable local noise preventing my reasonable use and enjoyment of my home and property. The Report implies this noise could occur at any time, or continuously, from 8 AM to 6:30 PM, daily, for four years. Nevertheless, the Report assesses the short-term noise impact, for all project alternatives, as Less Than Significant, No Mitigation Needed. This finding defies common sense for significant residential impact, and the locations cited in Appendix J of the Report that were analyzed for noise impact do not include any streets in the vicinity of California Avenue or its proposed staging site. I strongly disagree with this finding for this neighborhood and consider the noise impact analysis for this neighborhood inadequate since it does not include any nearby locations.
2. Traffic in Tahoe Island Park 4 subdivision: California Avenue, designated as the only haul route in this subdivision, is one of its narrowest streets. California Avenue is heavily used by residents, people walking their children and pets, pedestrians, and bicyclists. The street is too narrow for large vehicles to pass each other or turn around, or even for normal vehicles to navigate without evasive maneuvers. When cars are parked along it, it is effectively single lane. Yet the Report assesses the short-term potential for conflict between construction traffic, local traffic, pedestrians, and bicycles as Less Than Significant, No Mitigation Needed. For this neighborhood, I strongly disagree with this finding and consider the analysis it is based on to be inadequate. The finding defies common sense, does not seem to address the residential nature of the neighborhood, and the traffic impact assessment discussions in the Report cite only the Al Tahoe, Hidden Woods, and Tahoe Keys Neighborhoods, but not this neighborhood. I36-1
3. Disruption of established neighborhood values in Tahoe Island Park 4 subdivision: the proposed California Ave Staging site makes use of small undeveloped residential lots acquired by the CTC because of, and to prevent damage to, their environmental sensitivity. The neighborhood had a reasonable expectation that they would never be used by the CTC as a construction site for staging heavy equipment and fill materials. The aesthetic fundamental nature of the neighborhood would be devastated for four years by this use. This impact is not recognized or assessed in the Report. I strongly object to use of the subject CTC lots by the Project for this or other construction purposes.

4. Neighborhood safety in Tahoe Island Park 4 subdivision: construction activity on the subject CTC lots in conjunction with neighborhood children playing near their homes creates a safety hazard that does not appear to be identified or analyzed in the Report. I strongly object to unnecessary multi-year heavy construction in the neighborhood and feel that the Report has not adequately assessed the impact to the safety of neighborhood children. *Will a four year old neighborhood child not be able to play catch outside his or her home in the summer until he or she is 8?*
5. Increased Flood Risk in Tahoe Island Park 4 subdivision: The models cited in the Report predict no increased residential flood risk as a result of the Project. If the models prove incorrect, no assessment has been included of how expensive the damages to property owners would be or whether the lead Agencies would be responsible, and have the funds, to financially compensate the property owners
6. Neighborhood notification in Tahoe Island Park 4 subdivision: even though my neighborhood is potentially highly impacted by Project construction, ~~I was not directly notified of the Report or public comment period~~. Even if agency outreach and notification satisfied the letter of the law, it certainly did not satisfy the spirit of notifying impacted parties so they could comment. Few of my neighbors are aware of the possible impacts even now, and there has been little public response to the few recent outreach meetings. I feel the notification process has been inadequate and ineffective, at least near the potential California Ave Staging site.

I did receive notification by mail, but not to the heavy impact planned for California Ave SK

I believe these and other potential impacts to my neighborhood are excessive, unnecessary, and unacceptable. Therefore, I respectfully request that the preferred alternative and final plans, include the features below. If this isn't done, I respectfully request that additional impact analyses and public comment be undertaken to address the inadequacies cited above from these features. I36-1 cont.

1. No use of the CTC lots designated as California Ave Staging for any Project construction activities. It is not necessary for either environmental or practical reasons. The CTC has other alternatives that do not require disrupting this, or other, residential neighborhoods.
2. No use of California Ave as a haul route for Project construction activities.
3. No use of any streets or parcels in the Tahoe Island Park 4 subdivision as Project haul routes or staging sites.
4. Locating internal haul routes for river work on the east side of the river to the maximum extent possible to minimize impact to close-by residential neighborhoods which are primarily on the west side of the river.
5. Posting a bond or securing insurance to compensate property owners for damages and loss of property value, if the Project increases residential flood risk and the FEMA 100-year floodplain.

Respectfully submitted,

Name: Stan Koscielek Date: 4/6/13

Stan Koscielek

Address: 2

2

Letter
I36
Response

Stan Kosciolek
April 6, 2013

I36-1 The commenter has concerns about construction activities resulting in increased noise, traffic, disruption of established neighborhood values, neighborhood safety, and increased flood risk in the Tahoe Island Park 4 subdivision. The commenter states that individual residents in the Tahoe Island Park 4 subdivision were not directly notified of public outreach.

See response to Comment Letter I8 for a discussion regarding these concerns.

Letter I37

RECEIVED

CA TAHOE CONSERVANCY

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

Subject: Comments on Upper Truckee River and Marsh Restoration Project (Project)

Note: Withhold my home address from public disclosure to the extent allowed by law

I am a resident and/or property owner in the Tahoe Island Park 4 subdivision. I believe the Project planning and its environmental impact report (Report) do not adequately address the following possible real impacts to me and my neighborhood:

1. Construction noise in Tahoe Island Park 4 subdivision: this is a quiet residential neighborhood. Use of California Avenue as a haul route, and CTC neighborhood lots for the California Avenue Staging site, will generate abnormal and unacceptable local noise preventing my reasonable use and enjoyment of my home and property. The Report implies this noise could occur at any time, or continuously, from 8 AM to 6:30 PM, daily, for four years. Nevertheless, the Report assesses the short-term noise impact, for all project alternatives, as Less Than Significant, No Mitigation Needed. This finding defies common sense for significant residential impact, and the locations cited in Appendix J of the Report that were analyzed for noise impact do not include any streets in the vicinity of California Avenue or its proposed staging site. I strongly disagree with this finding for this neighborhood and consider the noise impact analysis for this neighborhood inadequate since it does not include any nearby locations. see next sheet
2. Traffic in Tahoe Island Park 4 subdivision: California Avenue, designated as the only haul route in this subdivision, is one of its narrowest streets. California Avenue is heavily used by residents, people walking their children and pets, pedestrians, and bicyclists. The street is too narrow for large vehicles to pass each other or turn around, or even for normal vehicles to navigate without evasive maneuvers. When cars are parked along it, it is effectively single lane. Yet the Report assesses the short-term potential for conflict between construction traffic, local traffic, pedestrians, and bicycles as Less Than Significant, No Mitigation Needed. For this neighborhood, I strongly disagree with this finding and consider the analysis it is based on to be inadequate. The finding defies common sense, does not seem to address the residential nature of the neighborhood, and the traffic impact assessment discussions in the Report cite only the Al Tahoe, Hidden Woods, and Tahoe Keys Neighborhoods, but not this neighborhood. I37-1
3. Disruption of established neighborhood values in Tahoe Island Park 4 subdivision: the proposed California Ave Staging site makes use of small undeveloped residential lots acquired by the CTC because of, and to prevent damage to, their environmental sensitivity. The neighborhood had a reasonable expectation that they would never be used by the CTC as a construction site for staging heavy equipment and fill materials. The aesthetic fundamental nature of the neighborhood would be devastated for four years by this use. This impact is not recognized or assessed in the Report. I strongly object to use of the subject CTC lots by the Project for this or other construction purposes.

1

4. Neighborhood safety in Tahoe Island Park 4 subdivision: construction activity on the subject CTC lots in conjunction with neighborhood children playing near their homes creates a safety hazard that does not appear to be identified or analyzed in the Report. I strongly object to unnecessary multi-year heavy construction in the neighborhood and feel that the Report has not adequately assessed the impact to the safety of neighborhood children. *Will a four year old neighborhood child not be able to play catch outside his or her home in the summer until he or she is 8?*
5. Increased Flood Risk in Tahoe Island Park 4 subdivision: The models cited in the Report predict no increased residential flood risk as a result of the Project. If the models prove incorrect, no assessment has been included of how expensive the damages to property owners would be or whether the lead Agencies would be responsible, and have the funds, to financially compensate the property owners
6. Neighborhood notification in Tahoe Island Park 4 subdivision: even though my neighborhood is potentially highly impacted by Project construction, I was not directly notified of the Report or public comment period. Even if agency outreach and notification satisfied the letter of the law, it certainly did not satisfy the spirit of notifying impacted parties so they could comment. Few of my neighbors are aware of the possible impacts even now, and there has been little public response to the few recent outreach meetings. I feel the notification process has been inadequate and ineffective, at least near the potential California Ave Staging site. see next sheet

I37-1 cont.

I believe these and other potential impacts to my neighborhood are excessive, unnecessary, and unacceptable. Therefore, I respectfully request that the preferred alternative and final plans, include the features below. If this isn't done, I respectfully request that additional impact analyses and public comment be undertaken to address the inadequacies cited above from these features.

1. No use of the CTC lots designated as California Ave Staging for any Project construction activities. It is not necessary for either environmental or practical reasons. The CTC has other alternatives that do not require disrupting this, or other, residential neighborhoods.
2. No use of California Ave as a haul route for Project construction activities.
3. No use of any streets or parcels in the Tahoe Island Park 4 subdivision as Project haul routes or staging sites.
4. Locating internal haul routes for river work on the east side of the river to the maximum extent possible to minimize impact to close-by residential neighborhoods which are primarily on the west side of the river.
5. Posting a bond or securing insurance to compensate property owners for damages and loss of property value, if the Project increases residential flood risk and the FEMA 100-year floodplain. + a plan to repave the street if it is indeed used as haul route

Respectfully submitted,

Name: Carol Ledesma Date: 4/6/13

Michael Ledesma Carol Ledesma

Address:

2

1. I am aware that city ordinances regarding noise are in effect 24/7 and complaints regarding noise can be called in for dogs barking, musical instrument practice or TV/stereo. I can't imagine a California Ave construction site to be less noisy than any of the above. Michael works nights + relies on our quiet neighborhood to get the rest he deserves. I37-2

6. We received no notification of the Project. What was reported in the papers was too vague to even allow me to imagine that my neighborhood would be affected. I37-3

Letter
I37
Response

Michael & Carol Ledesma
April 6, 2013

I37-1 The commenters have concerns about construction activities resulting in increased noise, traffic, disruption of established neighborhood values, neighborhood safety, and increased flood risk in the Tahoe Island Park 4 subdivision. The commenters state that individual residents in the Tahoe Island Park 4 subdivision were not directly notified of public outreach.

See response to Comment Letter I8 for a discussion regarding these concerns.

I37-2 The commenters have concerns about construction activities resulting in increased noise on California Avenue.

See Section 3.1.3, "Construction Noise," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for further discussion of construction-related noise.

I37-3 The commenters state that they were not notified of the proposed project.

The Project mailing list was developed by obtaining the most recent County Assessor's information as well as contact information provided through outreach over the life of the project. The commenter's address is on the list developed for noticing. For privacy purposes the address has been withheld in this Final EIR/EIS/EIS. See response to Comment I8-6 for further discussion of notification of the Draft EIR/EIS/EIS to Tahoe Island Park 4 subdivision residents.

Letter I38

From: KATHY AND JOE LINK [kwlink@sbcglobal.net]
Sent: Monday, April 08, 2013 1:15 PM
To: Carroll, Scott@Tahoe
Subject: Proposed changes to Upper Truckee Marsh

Scott,

We wanted to respond to the proposed changes to the Upper Truckee Marsh. We have had a home on the edge of the meadow for almost 15 years. It was our understanding that when the conservancy took over the meadow it was an effort to improve the clarity of the lake and maintain the delicate balance of nature for this environmentally sensitive area. Sadly, what we have seen over the last few years is the wildlife and flora diminish. The coyotes howls have been replaced by barking dogs chasing the geese. I38-1

Another issue that must be addressed is the lack of restroom facilities. If you move forward with adding walkways and viewing areas you are inviting more people in and you will need to take this into consideration. I am not sure that outhouses in the meadow is what the conservancy had in mind and we certainly don't want to look at them from our yard, but please be mindful that it is an issue. We can't tell you the number of times we have had to avert our gaze,(and our young daughters), as someone has relieved themselves in the meadow, not to mention those who do not cleanup after their dogs. The patrol has tried to address these issues, but unfortunately, they have barely made a dent since they are spread so thin. I38-2

We love the meadow and want to be able to enjoy it too, but honestly, we fear that making it another tourist destination will do irreparable harm and I hate to think what the meadow will be like in the next 15 years.

Thank you for your consideration, and let us know if you any additional questions.

Regards,

Kathy and Joe Link

Letter
I38
Response

Kathy & Joe Link
April 8, 2013

I38-1 The commenters' concern about the loss of wildlife and plants and the increase in dogs in the Upper Truckee Marsh is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Section 3.4, "Biological Resources," of the 2013 Draft EIR/EIS/EIS analyzes impacts of the project on plants and wildlife. The Preferred Alternative would enhance wildlife habitat by reducing human disturbance.

See Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for a discussion of animal control services in the study area.

I38-2 The commenters' concern about the lack of restrooms is noted.

Given the sensitive nature of the marsh, restrooms were not considered as part of the project. As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh and no additional recreation access on the marsh's east side.

Letter I39

From: BM [bmhburg@yahoo.com]
Sent: Sunday, April 07, 2013 11:22 PM
To: Carroll, Scott@Tahoe
Subject: Upper Truckee River and Marsh Restoration Project

Regarding the Restoration project, I would like to see public access on the outer perimeter of the marsh (similar to the trail along Taylor Creek), an unpaved hiking trail matching the one in Cove East off Venice Drive.
I think the Cove East Trail has been a wonderful success, given the opportunity to walk along the marsh and watch the wildlife and the vegetation. It is used by many people.

It would be great to have such a trail run all around the marsh, starting anywhere by Lily Ave, along the Al Tahoe neighborhood, with a bridge crossing Trout Creek towards the Highland Woods area (through the forested area along Springwood), behind Silverwood Circle, continuing over a bridge over the Upper Truckee River, ultimately joining the Cove East Trail. The trail should be dirt and mostly used by pedestrians, since a bike trail is already in place through Al Tahoe and along Highway 50. I39-1

Informal trails are already in place along the Al Tahoe neighborhood and along Springwood, so obviously quite some people walk there. It should be relatively easy and cost efficient to incorporate these. A missing piece that I really would like to see, since I live in the Highland Woods area, is a continuing trail from Springwood Drive along Silverwood Circle, with access points from the cul de sac and perhaps the forest lot on Springwood Drive.

I am in favor of returning the Upper Truckee River to a more natural state. By running a hiking trail around the perimeter of the marsh, without disturbing the interior, I think a balance between nature and humans can be found. This would also create a low key natural counterpoint to the "over" development of the Tahoe Keys.

Respectfully submitted
Barbara Marsden
915 Comstock Way
South Lake Tahoe, CA 96150
Sent from my iPad

Letter
I39
Response

Barbara Marsden
April 7, 2013

I39-1 The commenter's support for recreation around the perimeter of the marsh and for unpaved trails is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

Letter I40

Lynne Mersereau

836 El Dorado Ave. • South Lake Tahoe, CA 96150
Phone: (530) 541-3256 • E-Mail: GabBarrett@hotmail.com

Date: March 15, 2013

Scott Carroll
California Tahoe Conservancy
1061 Third Street
South Lake Tahoe, CA 916150

Subject: Comments on the Upper Truckee River and Marsh Restoration Project

Dear Mr. Carroll;

I have some concerns about the proposed alternatives for the Upper Truckee Marsh restoration and the recreation impacts disclosed by the EIR/EIS.

Before I list my concerns, I would like to say the environmental restoration in the marsh and the upgrades at Cove East are commendable. In addition, I consent with the public access and recreational opportunities that are being provided in Cove East next to the marina commercial area. I40-1

My first concern is with the proposed alternatives that increase public access to the meadow in the Al Tahoe residential area. In the South Lake Tahoe area, there is already public beach access in sensitive areas (e.g. Cove East, Pope Beach, Baldwin Beach, Taylor Creek and Rabe Meadow). The need for encouraging more public access on the east and southeast side of the sensitive Upper Truckee Marsh is perplexing. Al Tahoe is a residential NEIGHBORHOOD with legitimate concerns about the environmental impacts of any project in the Upper Truckee Meadow. I40-2

As to the EIS/EIR, there are the obvious issues and impacts related to added traffic, parking, noise, fire, and litter. The analysis is not clear to how many additional people are projected for each alternative. Thus, the impacts for each alternative are hard to determine. I40-3

I would like to understand why the transportation Section 3.16 uses San Francisco Avenue instead of Tallac Avenue or Los Angeles Avenue as a main thoroughfare access. San Francisco Ave. does not have a signal on Hwy 50 and has many stop signs on its way to the meadow. Los Angeles Ave. seems to be the main access to El Dorado Ave. and the meadow. Also, I could not find any description of impacts of traffic, parking and user impact on El Dorado Ave. by alternative. I40-4

In addition, by alternative, there is the question of who will maintain the recreational facilities in the future? Where is that stated in the document? I40-5

Furthermore, in the summer, the strong prevailing winds are from the southwest. Over the years, I have observed numerous people smoking in the meadow. With added public access so close to homes, the potential for fire is upgraded. Fire protection, as stated under Public Service Impacts on page 3.12-7 and 3.12-8, says that the impact is less than significant. I am wondering if that was the answer for the Gondola EIS? I40-6

Under Methods and Assumptions 3.13-9, point number 2 states: "The most popular recreational uses of the study area are dispersed outdoor recreation. The Tahoe Basin has an abundance of locations where I40-7

people can engage in the same recreational activities on public lands; thus, there is not a substantial unmet demand for such recreational opportunities."

As for the options presented in the four alternatives of the Truckee Meadows EIS/EIR, I am not in agreement. In my opinion, the best proposal is the added restoration of the Truckee, or letting it go back to the natural course. Maybe, something as simple as using more funding for enforcement could produce the best results for the meadow, wildlife and the lake, as well as public use and education. 140-8

Please do not publish my address. If possible, I would like to have a written response to my comments sent to me.

Thank you,

Lynne Mersereau

Letter
I40
Response

Lynne Mersereau
March 13, 2013

I40-1 The commenter's support for restoration of the study area and for public access and recreational opportunities in Cove East is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I40-2 The commenter's concerns about increased public access and impacts on the east meadow in the Al Tahoe area are noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh and no additional recreation access on the marsh's east side near the Al Tahoe neighborhood. Section 3.4, "Biological Resources," of the 2013 Draft EIR/EIS/EIS analyzes impacts of the project on plants and wildlife. The Preferred Alternative would enhance wildlife habitat by reducing human disturbance.

I40-3 The commenter's concern that it is difficult to estimate the increased amount of public use with each alternative is noted.

As described in Section 3.13, "Recreation," long-term effects on recreation resources and activities would result from providing infrastructure that changes the spectrum of recreation settings from dispersed to more developed and from altering accessibility throughout the site to varying degrees, depending on the alternative, which may lead to an increase in visitors within the study area. As described in Chapter 2, "Project Alternatives," the action alternatives were developed to balance recreation and public access with ecosystem restoration and habitat protection. This balance would be attained by providing well-designed public access and recreation facilities in nonsensitive areas and habitat protective elements and environmental education to direct use away from sensitive areas.

The evaluation of long-term effects of the alternatives considered how recreation use could increase proportionally to the change in the amount and connectivity of public access– and recreation-related infrastructure, because the proposed infrastructure would affect (increase) the accessibility of the project study area to recreational users. A record of precise counts of visitors does not exist for the study area, although the Conservancy has a comprehensive qualitative understanding of recreation use from staff observations and the activities of a site steward during summer months. Without a quantified inventory record of visitors, it is not feasible to develop precise quantitative estimates of changes in recreation users for each alternative. However, qualitative assessment is feasible based on the relative degree of proposed recreation and access infrastructure for each alternative. Based on this qualitative assessment of the alternatives relative to each other, implementing Alternative 2 (minimal recreation infrastructure) is expected to result in the least increase in visitation.

Implementing Alternative 1 (maximum recreation infrastructure) would result in the greatest increase in visitation, and implementing Alternative 3 or 4 (moderate recreation infrastructure) would result in an intermediate increase, between Alternatives 1 and 2 in magnitude, but negligibly different between Alternatives 3 and 4. The potential increase in the number of visitors is not considered to be substantial enough to create new or unmitigable impacts on recreation resources for the following reasons:

(1) The recreation and public access elements of the alternatives are related to reducing the impacts on natural resources of the existing use of the study area.

(2) The most popular recreational uses of the study area are dispersed outdoor recreation. The Tahoe Basin has an abundance of locations where people can engage in the same recreation activities on public lands; thus, there is not a substantial unmet demand for such recreational opportunities.

(3) Even though the action alternatives would move recreational uses from dispersed toward developed outdoor recreation (with Alternative 1 having the most change), the recreation uses proposed are not categorically fully developed facilities (e.g., campgrounds, marinas), and the increase in the number of visitors would not be similar to the increase associated with those uses.

(4) Adjacent neighborhoods account for a substantial portion of visitors to the study area, and implementing the project would not alter the number of residents in adjacent neighborhoods or substantially alter access to the study area from adjacent neighborhoods.

Nonetheless, several aspects of the proposed public access infrastructure could increase the number of visitors to the study area. The Preferred Alternative does not include any additional recreation access features on the east side of the marsh, access features on the west side of the marsh include a moderate level of infrastructure, similar to existing conditions, with improved ADA access, therefore, increase in visitor use would not be expected beyond that under Alternative 5, the No Project/No Action Alternative.

I40-4 The commenter's concerns about use of San Francisco Avenue instead of Tallac or Los Angeles Avenue is noted.

See Section 3.1.2, "Traffic, Access, and Staging," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS. See response to Comment AO2-7 for information on parking.

I40-5 The commenter's concern about long-term maintenance of the study area is noted.

As stated in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Conservancy has been maintaining existing infrastructure as part of its management of land in the study area, and implements management actions supporting public access, recreation, and habitat protection. Under the Preferred Alternative, the Conversancy would continue to provide maintenance of facilities. In addition, see Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS.

I40-6 The commenter's concern about increase in fire risk is noted.

See response to Comment AO2-10 for information in fire risks associated with the project.

I40-7 The commenter reiterates that there is not a substantial unmet demand for dispersed recreation in the Tahoe Basin.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I40-8 The commenter's support for restoration of the study area and increasing enforcement is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

Letter I41

RECEIVED

CA TAHOE CONSERVANCY

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

Subject: Comments on Upper Truckee River and Marsh Restoration Project (Project)

Note: Withhold my home address from public disclosure to the extent allowed by law

I am a resident and/or property owner in the Tahoe Island Park 4 subdivision. I believe the Project planning and its environmental impact report (Report) do not adequately address the following possible real impacts to me and my neighborhood:

1. Construction noise in Tahoe Island Park 4 subdivision: this is a quiet residential neighborhood. Use of California Avenue as a haul route, and CTC neighborhood lots for the California Avenue Staging site, will generate abnormal and unacceptable local noise preventing my reasonable use and enjoyment of my home and property. The Report implies this noise could occur at any time, or continuously, from 8 AM to 6:30 PM, daily, for four years. Nevertheless, the Report assesses the short-term noise impact, for all project alternatives, as Less Than Significant, No Mitigation Needed. This finding defies common sense for significant residential impact, and the locations cited in Appendix J of the Report that were analyzed for noise impact do not include any streets in the vicinity of California Avenue or its proposed staging site. I strongly disagree with this finding for this neighborhood and consider the noise impact analysis for this neighborhood inadequate since it does not include any nearby locations.
2. Traffic in Tahoe Island Park 4 subdivision: California Avenue, designated as the only haul route in this subdivision, is one of its narrowest streets. California Avenue is heavily used by residents, people walking their children and pets, pedestrians, and bicyclists. The street is too narrow for large vehicles to pass each other or turn around, or even for normal vehicles to navigate without evasive maneuvers. When cars are parked along it, it is effectively single lane. Yet the Report assesses the short-term potential for conflict between construction traffic, local traffic, pedestrians, and bicycles as Less Than Significant, No Mitigation Needed. For this neighborhood, I strongly disagree with this finding and consider the analysis it is based on to be inadequate. The finding defies common sense, does not seem to address the residential nature of the neighborhood, and the traffic impact assessment discussions in the Report cite only the Al Tahoe, Hidden Woods, and Tahoe Keys Neighborhoods, but not this neighborhood. I41-1
3. Disruption of established neighborhood values in Tahoe Island Park 4 subdivision: the proposed California Ave Staging site makes use of small undeveloped residential lots acquired by the CTC because of, and to prevent damage to, their environmental sensitivity. The neighborhood had a reasonable expectation that they would never be used by the CTC as a construction site for staging heavy equipment and fill materials. The aesthetic fundamental nature of the neighborhood would be devastated for four years by this use. This impact is not recognized or assessed in the Report. I strongly object to use of the subject CTC lots by the Project for this or other construction purposes.

1

4. Neighborhood safety in Tahoe Island Park 4 subdivision: construction activity on the subject CTC lots in conjunction with neighborhood children playing near their homes creates a safety hazard that does not appear to be identified or analyzed in the Report. I strongly object to unnecessary multi-year heavy construction in the neighborhood and feel that the Report has not adequately assessed the impact to the safety of neighborhood children. *Will a four year old neighborhood child not be able to play catch outside his or her home in the summer until he or she is 8?*
5. Increased Flood Risk in Tahoe Island Park 4 subdivision: The models cited in the Report predict no increased residential flood risk as a result of the Project. If the models prove incorrect, no assessment has been included of how expensive the damages to property owners would be or whether the lead Agencies would be responsible, and have the funds, to financially compensate the property owners
6. Neighborhood notification in Tahoe Island Park 4 subdivision: even though my neighborhood is potentially highly impacted by Project construction, I was not directly notified of the Report or public comment period. Even if agency outreach and notification satisfied the letter of the law, it certainly did not satisfy the spirit of notifying impacted parties so they could comment. Few of my neighbors are aware of the possible impacts even now, and there has been little public response to the few recent outreach meetings. I feel the notification process has been inadequate and ineffective, at least near the potential California Ave Staging site.

I41-1 cont.

I believe these and other potential impacts to my neighborhood are excessive, unnecessary, and unacceptable. Therefore, I respectfully request that the preferred alternative and final plans, include the features below. If this isn't done, I respectfully request that additional impact analyses and public comment be undertaken to address the inadequacies cited above from these features.

1. No use of the CTC lots designated as California Ave Staging for any Project construction activities. It is not necessary for either environmental or practical reasons. The CTC has other alternatives that do not require disrupting this, or other, residential neighborhoods.
2. No use of California Ave as a haul route for Project construction activities.
3. No use of any streets or parcels in the Tahoe Island Park 4 subdivision as Project haul routes or staging sites.
4. Locating internal haul routes for river work on the east side of the river to the maximum extent possible to minimize impact to close-by residential neighborhoods which are primarily on the west side of the river.
5. Posting a bond or securing insurance to compensate property owners for damages and loss of property value, if the Project increases residential flood risk and the FEMA 100-year floodplain.

Respectfully submitted,

Name: Jayme Miller Date: 4/8/13

Grant Miller 4/8/13

Address:

2

Letter
I41
Response

Gantt & Jayme Miller
April 8, 2013

I41-1 The commenters have concerns about construction activities resulting in increased noise, traffic, disruption of established neighborhood values, neighborhood safety, and increased flood risk in the Tahoe Island Park 4 subdivision. The commenters state that individual residents in the Tahoe Island Park 4 subdivision were not directly notified of public outreach.

See response to Comment Letter I8 for a discussion regarding these concerns.

Letter I42

Comments on the Upper Truckee River and Marsh Restoration Project
From Property Owners Gantt and Jayme Miller at 871 Michael Drive

RECEIVED
CA TAHOE CONSERVANCY

April 5, 2013

Scott,

My family and I live at 871 Michael Drive and our property backs directly to the meadow area of the Upper Truckee watershed. I have two concerns about the proposed restoration project on the Upper Truckee River Marsh area behind our house.

1. Don't run over our kids with your construction equipment. I have two small children ages 3 and 1-1/2 years old and we live next to a conservancy lot, which according to your maps, may be used as a "staging area" for construction. While my son would very excited by the prospect of having dump trucks, front-end loaders, and other heavy equipment right next to our house, my wife and I have some reservations about how prudent it would be to use a residential lot surrounded by numerous families as a "staging area." They take a nap around noon for about 2 hours. They run all over the place. It's just not a very well thought-out approach plan when there are current construction corridors for the TKPOA and directly off of highway 50, which do not impact the numerous children and families in our area. The Tahoe Island neighborhood is one of the few areas in Tahoe with majority year-round residents; it would be a crime to turn one of the last bastions of community into a highway for heavy equipment. I42-1

2. Flooding is also a concern. We currently pay flood insurance on our home and have seen high water impact the Tahoe Island neighborhood. As it appears that the goal of the project is to essentially allow the Upper Truckee to flood with greater regularity thereby restoring a more natural wetland habitat, my question is one of responsibility. Since the restoration project will produce greater flooding, will the conservancy also take financial responsibility for any property damage caused by that flooding? In the maps and alternatives outlined in your vast project documentation, nowhere were dykes or berms indicated to protect the residential neighborhood from increased flooding. My only assumption then would be that the indirect goal of the restoration is to use the Tahoe Island neighborhood as an overflow area for the Upper Truckee. Why not flood the Tahoe Keys instead? After all, it was that development that severely altered the hydrology of the Upper Truckee Delta. I42-2

It would have been nice if we were notified about the plan earlier. Thankfully one of my neighbors alerted me to the expiration of the public comment period, but no outreach was conducted to our family even though we would be directly impacted not only by the project's overall goals, but also by the construction process. I42-3

With all of the above being said, I do believe that it makes sense to do something to help restore the Upper Truckee and am glad that this project exists. I would just ask that in the implementation of the project consideration is taken for the safety of the residential community surrounding the work and consideration be given to the ultimate liability for property damage that could result from the well-intentioned efforts of the conservancy. I42-4

Thank you.

Gantt and Jayme Miller
871 Michael Drive
South Lake Tahoe, CA 96150

Letter
I42
Response

Gantt & Jayme Miller
April 5, 2013

I42-1 The commenters' concern regarding safety of staging areas in neighborhoods is noted.

As shown in Exhibit 2-2 in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative does not propose construction staging areas on or in the vicinity of Tahoe Island neighborhood. See Section 3.1.2, "Traffic, Access, and Staging," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for additional discussion.

I42-2 The commenters are concerned about increased flooding and increased flooding-related financial burdens in the Tahoe Island neighborhood.

See Section 3.1.1, "Flooding and Flood Hazards," in Chapter 3 of this Final EIR/EIS/EIS for further discussion on flooding. The analysis of the proposed project is consistent with CEQA, NEPA and TRPA requirements because the project would not change the existing flood hazards of the surrounding properties. See "Flooding and Flood Hazards," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS. Furthermore, financial responsibility for flood damages is not an issue relating to effects on the environment that requires an analysis under CEQA.

I42-3 The commenters' concern about noticing and public outreach is noted.

The Project mailing list was developed by obtaining the most recent County Assessor's information as well as contact information provided through outreach over the life of the project. The commenter's address was incorrect with the County and has been updated. For privacy purposes the address has been withheld in this Final EIR/EIS/EIS. See responses to Comments AO2-4 and I8-6 for a discussion of the project's history, planning context, and public outreach.

I42-4 The commenters' support for restoration of the study area with consideration for neighborhood safety and liability is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative. See Section 3.1.1, "Flooding and Flood Hazards," in Chapter 3 of this Final EIR/EIS/EIS for further discussion on flooding. The analysis of the proposed project is consistent with CEQA, NEPA and TRPA requirements because the project would not change the existing flood hazards of the surrounding properties. See "Flooding and Flood Hazards," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS. Furthermore, financial responsibility for flood damages is not an issue relating to effects on the environment that requires an analysis under CEQA.

See Section 3.1.4, "Management," in Chapter 3 of this Final EIR/EIS/EIS for further discussion on safety. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

Letter I43

From: theochoas3@charter.net
Sent: Monday, April 01, 2013 7:57 PM
To: Carroll, Scott@Tahoe
Subject: Comment: Upper Truckee Marsh
Attachments: DSC_0144-002.JPG

Hello Soott,
Please accept my comments on the restoration of the Upper Truckee Marsh.

I live on the east side of the meadow a block from El Dorado Avenue and have spent many hours walking in the meadow. The Conservancy has a real challenge protecting the meadow and at the same time allowing people to enjoy it.

Alternative 1 would have great recreation oppotunities, but it would attract too many people and would end up destoying the meadow. It would be impossible to keep everyone out of the sensitive areas. I43-1

The Alternative I favor is Alternative 2. I like the Boardwalk suggested on the east side where the water tends to flood in the spring. There are many birds nesting in the spring where the property line turns north, though. The boardwalk would disturb this prime nesting area. If the boardwalk was put close to the property line, then I would favor Alternative 4. I selfishly would like to see a boardwalk put in to have more access even in a high spring-run off year, but it is important to protect that area.

Sincerely,
Cindy Ochoa
530-542-2943

FYI - I have attached my favorite photo of the marsh.

Letter
I43
Response

Cindy Ochoa
April 1, 2013

I43-1 The commenter's opposition to Alternative 1 and support of Alternatives 2 and 4 are noted. The commenter's support for a boardwalk if the area can also be protected is also noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative does not include construction of a boardwalk. The Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

Letter I44

From: Pete O'Hara [pete20077@msn.com]
Sent: Sunday, April 07, 2013 5:21 AM
To: Carroll, Scott@Tahoe
Cc: Pete; Leslynn
Subject: Comment: Upper Truckee Marsh/ Law Enforcement Impact

Mr. Carroll:

Thank you for your review of this comment. I am available at the District Attorneys' Office (# 530-573-3100) if I can be of further assistance.

I am in favor of the watershed restoration. I am opposed to building anything, especially kiosks, bike/pedestrian paths in the marsh.

Crime has increased in the marsh since the Barton family left and removed the supervision of the cowboys who were there for the cattle. The opportunity for criminal behavior in the marsh will be enhanced if improvements are placed in this secluded area. I have worked with law enforcement in So. Lake Tahoe for more than 25 years. Improvements will put more demands on the Sheriff and Police. Criminal suspects already flee to the marsh and/or use natural seclusion of the area for 'cover' for bad acts. Infrastructure will enhance the already established homeless camp behind the Motel and under the two HY 50 bridges. This hidden cost to community safety and to the taxpayers by increasing law enforcement calls to this huge area is an unintended impact. I44-1

Peter O'Hara

Letter
I44
Response

Peter O'Hara
April 7, 2013

I44-1 The commenter's support for restoration of the study area and concern about increased public access and associated crime is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative.

See Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for a discussion of police protection services in the study area.

Letter I45

From: Ellen Palazzo [ellentahoe@yahoo.com]
Sent: Monday, April 08, 2013 9:46 AM
To: Carroll, Scott@Tahoe
Subject: Upper Truckee River Marsh Restoration Project
Attachments: Upper Truckee River and Marsh Restoration Project Ltr.pdf

CTC

RE: Upper Truckee River Marsh Restoration

My husband and I are homeowners at 2343 California Ave in South Lake Tahoe and we are concerned about the proposed project that would affect the public open space in this area. We have quietly enjoyed this meadow for many years and are disturbed by the desire of CTC to "improve" the area for wildlife and endangered species without regard for the residents that live in the area and enjoy this public open space. I45-1

Concerns

1) Creating a wetland restricts walking in the area as it will become too marshy to walk in I45-2

2) Increased mosquitos in the area affecting the enjoyment our own outdoor space at our homes I45-3

3) Increased coyote population (we have seen this already in our neighborhood and have actually named the coyotes that frequent the streets and our yards tormenting our pets. I45-4

4) Devalue our homes - One of the biggest reasons we purchased our home was the location and the fact we didn't need to drive to enjoy walking in public open space. I45-5

5) too many restrictions on using the area, especially if you have a family dog. I45-6

6) considering only the wildlife and not the residents who use the area. I45-7

7) Increased risk of flooding in the neighborhood I45-8

8) Increased urbanization of Cove East destracts from the natural beauty and steers people away, particularly residents. I45-9

9) please see the attached letter for additional concerns regarding the use of my street as a hauling route for trucks. I45-10

Public space should not have the type of restrictions that you have placed on us. It is apparent that the CTC is not considering the residents using this "public" open space and you're long term intent is to keep people from using that area. I45-11

Respectfully submitted

Gene and Ellen Palazzo

Letter
I45
Response

Gene & Ellen Palazzo
April 8, 2013

I45-1 The commenters' concern about neighborhood use of open space is noted.

Potential impacts related to public access and recreation are discussed in Section 3.13, "Recreation," of the 2013 Draft EIR/EIS/EIS. See response to comment I40-3 for a discussion of the methods and assumptions used to evaluate impacts on recreation and public access. The Preferred Alternative would continue to provide public access on the west side of the marsh consistent with the project goals and purpose of the property acquisition. The Conservancy would continue to manage user-created trails (dispersed recreation access) on the east side of the marsh similar to existing conditions.

I45-2 The commenters' concern about increased marsh habitat reducing access is noted.

Potential impacts related to public access and recreation are discussed in Section 3.13, "Recreation," of the 2013 Draft EIR/EIS/EIS. The Preferred Alternative would continue to provide public access on the west side of the marsh, similar to existing conditions.

I45-3 The commenters' concern about additional mosquito production is noted.

See response to Comment I4-4. In addition, see Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for further discussion of mosquito control.

I45-4 The commenters' concern about an increase in the coyote population is noted.

The proposed project would not affect coyote populations.

I45-5 The commenters' concern about the proposed project devaluing adjacent homes is noted.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I45-6 The commenters' concern about restrictions on dog use is noted.

See Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for further discussion of animal control.

I45-7 The commenters' concern about neighborhood use instead of wildlife use is noted.

Potential impacts related to public access and recreation are discussed in Section 3.13, "Recreation," of the 2013 Draft EIR/EIS/EIS. The Preferred Alternative would continue to provide public access on the west side of the marsh, similar to existing conditions.

I45-8 The commenters are concerned about potential increases in neighborhood flooding.

An updated discussion of existing and potential flood hazards is provided in Section 3.1.1, "Flooding and Flood Hazards," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS.

I45-9 The commenters' concern about urbanization of Cove East is noted.

The Preferred Alternative would provide a "moderate" level of recreation infrastructure similar to existing conditions and would include a modified Americans with Disabilities Act (ADA)–accessible pedestrian trail to Cove East Beach, a viewpoint and observation point, a fishing platform, and signage.

I45-10 The commenters' concern about designated haul routes is noted.

See Section 3.1.2, "Traffic, Access, and Staging," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for additional discussion.

I45-11 The commenters' concern about restrictions on public access is noted.

The Preferred Alternative would continue to provide public access consistent with acquisition and litigation settlement agreements as described in Chapter 2 of this Final EIR/EIS/EIS.

Letter I46

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

Subject: Comments on Upper Truckee River and Marsh Restoration Project (Project)

Note: Withhold my home address from public disclosure to the extent allowed by law

I am a resident and/or property owner in the Tahoe Island Park 4 subdivision. I believe the Project planning and its environmental impact report (Report) do not adequately address the following possible real impacts to me and my neighborhood:

1. Construction noise in Tahoe Island Park 4 subdivision: this is a quiet residential neighborhood. Use of California Avenue as a haul route, and CTC neighborhood lots for the California Avenue Staging site, will generate abnormal and unacceptable local noise preventing my reasonable use and enjoyment of my home and property. The Report implies this noise could occur at any time, or continuously, from 8 AM to 6:30 PM, daily, for four years. Nevertheless, the Report assesses the short-term noise impact, for all project alternatives, as Less Than Significant, No Mitigation Needed. This finding defies common sense for significant residential impact, and the locations cited in Appendix J of the Report that were analyzed for noise impact do not include any streets in the vicinity of California Avenue or its proposed staging site. I strongly disagree with this finding for this neighborhood and consider the noise impact analysis for this neighborhood inadequate since it does not include any nearby locations.
2. Traffic in Tahoe Island Park 4 subdivision: California Avenue, designated as the only haul route in this subdivision, is one of its narrowest streets. California Avenue is heavily used by residents, people walking their children and pets, pedestrians, and bicyclists. The street is too narrow for large vehicles to pass each other or turn around, or even for normal vehicles to navigate without evasive maneuvers. When cars are parked along it, it is effectively single lane. Yet the Report assesses the short-term potential for conflict between construction traffic, local traffic, pedestrians, and bicycles as Less Than Significant, No Mitigation Needed. For this neighborhood, I strongly disagree with this finding and consider the analysis it is based on to be inadequate. The finding defies common sense, does not seem to address the residential nature of the neighborhood, and the traffic impact assessment discussions in the Report cite only the Al Tahoe, Hidden Woods, and Tahoe Keys Neighborhoods, but not this neighborhood. I46-1
3. Disruption of established neighborhood values in Tahoe Island Park 4 subdivision: the proposed California Ave Staging site makes use of small undeveloped residential lots acquired by the CTC because of, and to prevent damage to, their environmental sensitivity. The neighborhood had a reasonable expectation that they would never be used by the CTC as a construction site for staging heavy equipment and fill materials. The aesthetic fundamental nature of the neighborhood would be devastated for four years by this use. This impact is not recognized or assessed in the Report. I strongly object to use of the subject CTC lots by the Project for this or other construction purposes.

1

4. Neighborhood safety in Tahoe Island Park 4 subdivision: construction activity on the subject CTC lots in conjunction with neighborhood children playing near their homes creates a safety hazard that does not appear to be identified or analyzed in the Report. I strongly object to unnecessary multi-year heavy construction in the neighborhood and feel that the Report has not adequately assessed the impact to the safety of neighborhood children. *Will a four year old neighborhood child not be able to play catch outside his or her home in the summer until he or she is 8?*
5. Increased Flood Risk in Tahoe Island Park 4 subdivision: The models cited in the Report predict no increased residential flood risk as a result of the Project. If the models prove incorrect, no assessment has been included of how expensive the damages to property owners would be or whether the lead Agencies would be responsible, and have the funds, to financially compensate the property owners
6. Neighborhood notification in Tahoe Island Park 4 subdivision: even though my neighborhood is potentially highly impacted by Project construction, I was not directly notified of the Report or public comment period. Even if agency outreach and notification satisfied the letter of the law, it certainly did not satisfy the spirit of notifying impacted parties so they could comment. Few of my neighbors are aware of the possible impacts even now, and there has been little public response to the few recent outreach meetings. I feel the notification process has been inadequate and ineffective, at least near the potential California Ave Staging site. I46-1 cont.

I believe these and other potential impacts to my neighborhood are excessive, unnecessary, and unacceptable. Therefore, I respectfully request that the preferred alternative and final plans, include the features below. If this isn't done, I respectfully request that additional impact analyses and public comment be undertaken to address the inadequacies cited above from these features.

1. No use of the CTC lots designated as California Ave Staging for any Project construction activities. It is not necessary for either environmental or practical reasons. The CTC has other alternatives that do not require disrupting this, or other, residential neighborhoods.
2. No use of California Ave as a haul route for Project construction activities.
3. No use of any streets or parcels in the Tahoe Island Park 4 subdivision as Project haul routes or staging sites.
4. Locating internal haul routes for river work on the east side of the river to the maximum extent possible to minimize impact to close-by residential neighborhoods which are primarily on the west side of the river.
5. Posting a bond or securing insurance to compensate property owners for damages and loss of property value, if the Project increases residential flood risk and the FEMA 100-year floodplain.

Respectfully submitted,

Name: Ellen Palazzo Date: 4/7/13

Gene Palazzo

Address:

2

Letter
I46
Response

Gene & Ellen Palazzo
April 7, 2013

I46-1 The commenters have concerns about construction activities resulting in increased noise, traffic, disruption of established neighborhood values, neighborhood safety, and increased flood risk in the Tahoe Island Park 4 subdivision. The commenters state that individual residents in the Tahoe Island Park 4 subdivision were not directly notified of public outreach.

See response to Comment Letter I8 for a discussion regarding these concerns.

Letter I47

From: Mark Anton [antonsingers@yahoo.com]
Sent: Monday, April 08, 2013 10:21 AM
To: Carroll, Scott@Tahoe
Subject: Upper Truckee River and Marsh Restoration Project

I live in the Tahoe Keys and one of my favorite trails for hiking and running is located in Cove East.

It would be great to have that trail run all around the perimeter of the marsh, with bridges across the Upper Truckee and Trout Creek, ending close to the Lake in the Al Tahoe neighborhood. This trail would connect the Keys, Highland Woods and Al Tahoe for hikers and runner, without having to be close to Highway 50. It would give people the opportunity to enjoy the beauty and the wildlife in the marsh with little disturbance. I47-1

I would prefer to see the river returned to a more natural state if the financial resources can be found. I think a trail like I am suggesting would be a relatively low cost improvement. It would be of great benefit to many people, as well as the City of Tahoe, in providing a vast segment of connected trails right in town.

Mark A. Pevarnic
439 Ala Wai Blvd. no. 158
South Lake Tahoe, CA 96150

Mark Anton Singers' Studio
founded 1981
Mark Anton, Owner and Artistic Director
Locations in Burbank, California and Olympia,Washington
818-955-9535 or 360-870-7575

Letter
I47
Response

Mark A. Pevarnic
April 8, 2013

I47-1 The commenter's support for a trail around the perimeter of the marsh and restoration of the Upper Truckee River is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

Letter I48

From: Greg Poseley [g.poseley@gmail.com]
Sent: Friday, April 26, 2013 5:33 PM
To: Carroll, Scott@Tahoe
Cc: Greg Poseley
Subject: Upper Truckee Marsh Restoration Project-Public Comment

Dear Mr. Carroll:

Thank you for your comprehensive and compelling document related to the proposed project in the Upper Truckee River floodplain. My wife and I are property owners adjacent to the east side of the Truckee Marsh and are therefore keenly interested in the potential impact the Project will have in the area. Please accept the following comments related to the proposed project. I realize that I am submitting this far beyond your deadline, however I do hope there may be some useful food for thought here.

OBJECTIVES:
The Draft EIR/EIS/EIS document clearly states that the particular issue related to the proposed Project is the sediment and nutrient load imparted into Lake Tahoe due to channelization and other human disturbances to the Upper Truckee River primarily throughout the current city limits
of the City of South Lake Tahoe. Additional needs include habitat restoration and preservation and recreational opportunities. I48-1

It is hoped that in this less-than-one square mile unique environment that ecological priorities will out-weigh recreational pursuits variously proposed. Indeed, at least one preliminary study by the United States Forest Service Lake Tahoe Basin Management Unit does not mention recreation at all in its document describing needs, goals and objectives of the project.
(Please see: http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5143256.pdf)

FUNDING
I do not see this fundamental project element addressed in the Draft EIR/EIS/EIS. The public should be made aware of the scope of costs related to the various proposed Alternatives in order to gain a more balanced and realistic appraisal of the Project and its funding priorities within each. If no funding source has been identified, then this statement should be made evident early on. I48-2
A discussion of possible, and more suitably, likely funding sources, amounts and continued maintenance budget should be presented.

LONG TERM STABILITY OF STRUCTURES CREATED BY ALTERNATIVES 1- 4
While there is discussion of the effectiveness of the new infrastructure created through the engineering efforts proposed in the Draft EIR's Alternatives 1 through 4, stability and long term effectiveness of these elements must also be considered. The vagaries and extremes of the Tahoe Basin's seasonal and annual weather patterns, particularly the susceptibility to high level, unregulated storm or snowmelt runoff, may well physically undermine the Projects efforts in a relatively short time. Despite the extensive treatise on flooding developed in Section 3.8 Hydrology and Flooding, I am not convinced the physical structures proposed could withstand above-moderate to severe storm runoff. I48-3

TROUT CREEK IMPACT
While the Upper Truckee River has undergone substantial human induced disturbance, the course of Trout Creek along the eastern edge of the Marsh currently supports a wide variety of ecosystems and habitats much revered by local property owners. There should be more discussion of the impact the Project will have on the relatively undisturbed Trout Creek. There is a serious potential for negative impact on the current idyllic condition of the creek by further engineering operations in the Marsh and the construction of recreationally related boardwalks, bike paths, pedestrian bridges, observation sites, interpretive centers and vehicle parking lots. Indeed, the mere construction of these latter entities in the Trout Creek area will create environmental impacts that will take years to erase. The impact of the proposed recreational components of the Project on long-established neighborhoods and the positive aesthetic appeal of the area in its current minimalist recreational condition needs additional discussion. I48-4

RECREATION, MONITORING and ENFORCEMENT
Despite whatever efforts have been previously made to educate users of this area as to the sensitivity of the wildlife, there is continued abuse. Dogs regularly run unleashed throughout the Marsh, dog waste and litter is common, and evidence of homeless camps and illegal fire ringsare occasionally seen. Four of the Project alternatives identify the creation of recreational infrastructure, yet there is no discussion of on-going maintenance, monitoring and law enforcement in this area. The proposed Project should address on-going monitoring and enforcement within the area to ensure neighborhood security, safety and long term habitat and wildlife preservation efforts. I48-5

Again I apologize for the tardiness of this feedback, yet I thank you for the opportunity to comment on the proposed Project.

Yours Truly,

Gregory Poseley
g.poseley@gmail.com

Letter
I48
Response

Greg Poseley
April 26, 2013

I48-1 The commenter's support of making restoration a priority over recreation is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I48-2 The commenter's request for additional information on the cost of the alternatives is noted.

See response to Comment AO8-7.

I48-3 The commenter's concern regarding the long-term stability of proposed restoration features required under any of the action alternatives is noted.

High flows have the potential to damage or erode restoration features or recreation infrastructure required in channels or on floodplains. As noted by the commenter and discussed in Section 3.8, "Hydrology and Flooding," of the 2013 Draft EIR/EIS/EIS, high unregulated flows periodically occur through the project area, particularly associated with rain-on-snow events and localized high-intensity summer thunderstorm events. The restoration elements included in all the alternatives would emulate natural riverine processes and functions, including allowing for some channel erosion and movement that is typical for sinuous channels through meadows. It is possible that extreme events may cause erosion of channel banks and shifts in channel position, as would be expected under natural conditions. The commenter is correct in noting that some engineered features and/or structures necessary to relocate or redirect flows, support certain stream bed or bank locations, and/or protect vital infrastructure must be designed to remain stable and static. The concept-level Preferred Alternative presented in this Final EIR/EIS/EIS (see schematic diagrams in Appendix A) would be further refined through the final design process. Any constructed features would meet specific parameters for stability under the design flows, including the 100-year event for permanent structures that must remain in place to support the restored channel position and/or protect infrastructure.

I48-4 The commenter's concern regarding potential impacts of recreation components of the project along the east side of the marsh on Trout Creek is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative does not propose additional recreation infrastructure on the east side of the marsh. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I48-5 The commenter's concern about off-leash dogs and public safety in the study area is noted. See Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for a discussion of police protection and other public services in the study area. Furthermore, as discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing

moderate infrastructure on the west side of the marsh and no additional recreation access on the marsh's east side.

Letter I49

Regarding River Project Plans and any usage of California Ave

From Jim and Barbara Randolph
2333 California Ave
So Lake Tahoe, Ca 96150

I am opposed to having our street as possible access for the project. I recommend you sit down and re-evaluate other options. This is a residential street with full time residences with children that walk and *play in these streets. It would be highly dangerous to use this street* I49-1

We are all aware of the flood plain and that we live here and fear that by using our street for access and I believe that this project in an already land sensitive area will make it even worse. I49-2

Please consider this opposition notice from us a legal notice. I truly fear some accident and/or damage would happen directly by the disregard of our concerns at this time. I49-3

Also, I don't believe each resident was properly notified of this plan. I49-4

Letter
I49
Response

Jim & Barbara Randolph
April 8, 2013

I49-1 The commenters' concern about access points on California Avenue is noted. As shown in Exhibit 2-2 in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative does not propose access points on or in the vicinity of California Avenue.

I49-2 The commenters acknowledge that they are located in a floodplain and are concerned that accessing the site through their street will make flooding worse.

Temporary use of a street or native ground surface for construction access would not result in any permanent modifications to the topography and/or flooding. Additionally, as discussed in response to Comment I49-1, adjustments to the access points and routes that eliminate California Avenue have been made for the Preferred Alternative.

I49-3 The commenters' request to consider the comment letter as a legal notice is noted.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I49-4 The commenters' concern about noticing is noted.

The Project mailing list was developed by obtaining the most recent County Assessor's information as well as contact information provided through outreach over the life of the project. The commenter's address was incorrect with the County and has been updated. For privacy purposes the address has been withheld in this Final EIR/EIS/EIS. See responses to Comments AO2-4 and I8-6 for a discussion of the project's history, planning context, and public outreach.

Letter I50

April 6, 2013

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

COMMENTS to the Upper Truckee River and Marsh Restoration Project

Like the CTC, I don't have a preferred alternative, but I do tend to have a laissez-fair or don't worry twice attitude. I have serious doubts that the CTC, much less the City of South Lake Tahoe, will have funding come the CTC planned start-up of the Upper Truckee River and Marsh Restoration project in 2015. I'll be fine if the CTC doesn't get the funding and thus can only do restoration activity at the mouth of the Upper Truckee as it leads into the lake which is where the most human damage (besides by the Hwy 50 bridge) has been done; I agree we need some restoration. I'm happily signing a separate letter written by my husband embracing Alternative 3 for its most bang for the buck and the light recreational additions. We would like to see the most benefit with the least destruction. I50-1

Recreation

The DEIR/DEIS/DEIS makes note that there is currently plenty of recreation available for residents and visitors. I see no benefit to providing footpaths, bicycle paths, wheelchair paths, signs or boardwalks to further denigrate the pristine nature of our meadows. Building more facilities for human interaction will result in the waste of natural resources including oil and gasoline, steel, and lumber (as you note in the Report) as well as further human encroachment. I don't personally see the need for many more recreational "tools". I50-2

City of South Lake Tahoe

These recreational facilities will require upkeep (by means not outlined in the DEIR/DEIS/DEIS). Not only the City, but the County will need ongoing funding to maintain infrastructure changes suggested in the Recreational Alternatives. The CTC tasks the City of South Lake Tahoe (CSLT) for various causes. "**City of South Lake Tahoe:** The study area is located entirely within CSLT's jurisdictional limits. Chapter 8, "Building Regulations," of I50-3

the CSLT Ordinance requires that projects prepare a grading plan for review and grading-permit approval by the CSLT building official. .....purpose of the review is for CSLT to safeguard adjoining properties and public streets and ways from damage by unnatural flows of surface waters, and to prevent construction of homes and other buildings in areas likely to become flooded. CSLT is the floodplain administrator for FEMA in the project area, responsible for implementing the federal policies and regulations for floodplain management." Does the City of South Lake Tahoe have ongoing funding for the construction and the upkeep of the proposals in the Alternatives? I50-3 cont.

Wildlife

It is my understanding that a current survey of migratory birds has not been completed. There are no doubt other such surveys incomplete – and again, the Report is 30%. We've noticed far fewer frogs over the last few years. A great blue heron has enjoyed voles from our lawn in springs past, as well as a snowstorm or two. Is he in your count?

I50-4

You say "Compliance with the MBTA is being addressed through compliance with the ESA and CEQA and through an additional measure. As discussed in Section 3.4, "Biological Resources: Vegetation and Wildlife," adverse impacts on special-status migratory birds would be avoided and effects on other migratory species reduced by conducting preconstruction surveys and establishing exclusion zones and/or limiting construction activities to the period outside the breeding season. In addition to these measures, to comply with the MBTA, a preconstruction survey for migratory bird nests would be conducted to locate and avoid or minimize the loss of active nests during construction. For construction activities during the nesting season (approximately April 1 to August 15) and within suitable nesting habitat, a preconstruction survey for active nest sites of migratory birds would be conducted within 30 days before construction. The survey would be limited to areas where the loss of active nests could occur as a result of vegetation removal or other ground disturbance. If a migratory bird nest or likely nest site is located, a buffer around the nest would be avoided until the nest is no longer active." Please don't forget it.

We informed the CTC of the sighting of a possible mink, not seen in the Project area in over "30 years" per CTC wildlife biologist.

I50-4

If instead it's an **American Marten**, it too is a Federally sensitive species or TRPA special interest/threshold species. While the Report doesn't call these Endangered or Special, the FSS status comes close. We'd really like it if whatever alternative is chosen doesn't have any substantial adverse effect - I remind you - "Under CEQA, an alternative was determined to result in a significant effect related to vegetation and wildlife resources if it would: ► have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFG or USFWS (CEQA 1). I don't think this has been investigated well. PLEASE be sure! Again, it would be nice if whatever work gets done in our neck of the woods it will be light-footed.

California Avenue

My husband has written a truly cogent letter, expressing our neighborhood horror at the plans to use California Avenue and lots nearby as haul route staging sites. Not much thought was apparently given this by the CTC in that California Avenue is the smallest and most populated of all the streets in the Tahoe Island Park 4 district. The CTC has lots of its own, and main city streets to afford access to the project. The report states that the CTC will "..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." The proposed staging sites on California Avenue and Michael Avenue are both lots that were designated "sensitive" and all future use as developable removed.

I50-5

Flooding

Also addressed in our mutual letter. Echoed by many others I've spoken with. Do not increase our flood risk. Have a plan in place if increased flooding, particularly during river re-routing while construction is occurring, should occur.

I50-6

4

Invasive Critters
In the same category as flooding, I imagine the homes near the project area will be inundated with fleeing voles and mice. Does or will the CTC address and mediate this effect? I50-7

Thank you for the opportunity to comment.

Respectfully,

Catherine (Cass) Rosenberg

Withold my home address from public disclosure to the extent allowed by law

Letter
I50
Response

Catherine Rosenberg
April 6, 2013

I50-1 The commenter's support for the most cost effective restoration alternative (Alternative 3 and "light recreation" additions) is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I50-2 The commenter's opposition to additional recreation facilities is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate infrastructure on the west side of the marsh and no additional recreation access on the east side of the marsh. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I50-3 The commenter's concern regarding funding for long-term maintenance of recreation infrastructure is noted.

The Conservancy would continue to maintain new recreation infrastructure similar to existing conditions. In addition, see Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I50-4 The commenter's concerns regarding potential impacts on migratory birds are noted.

As discussed in Section 3.4, "Biological Resources," of the 2013 Draft EIR/EIS/EIS, Mitigation Measures 3.4-8A and 3.4-8B address construction-related impacts on wildlife and would be implemented during construction. The mitigation monitoring and reporting program prepared for this Final EIR/EIS/EIS would ensure the enforcement of these mitigation measures. See Appendix C of the Final EIR/EIS/EIS.

I50-5 The commenter's concern about haul routes and staging areas on California Avenue is noted.

As shown in Exhibit 2-2 in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative does not propose construction staging areas on or in the vicinity of California Avenue. See Section 3.1.2, "Traffic, Access, and Staging," and Section 3.1.3, "Construction Noise," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for further discussion of construction-related noise and traffic.

I50-6 The commenter is concerned about a potential increase in flood risk, including potential flooding during construction.

An updated discussion of existing and potential flood hazards is provided in Section 3.1.1, "Flooding and Flood Hazards," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS. The probability of a large flood event occurring during active construction would be very low because major floods are typically associated with late-fall and winter rain-on-snow events, but the potential for flood peaks during construction is addressed in Section 3.9, "Geomorphology and Water Quality," because flood peaks could result in water quality impacts. The Conservancy would implement Environmental Commitments 5 and 6, which would include management of the site and construction activities, including staging and storage of materials to avoid flood-prone areas and adjustment of the construction schedule and location in the unlikely event of a construction-season flood event.

I50-7 The commenter's concern about voles and mice coming into neighborhoods because of flooding is noted.

Voles and mice would be expected to use the marsh as under existing conditions. Conservancy management activities to not include mowing of marsh grasslands that can typically cause rodents to flee an area, and the proposed project would not change flooding. An updated discussion of existing and potential flood hazards is provided in Section 3.1.1, "Flooding and Flood Hazards," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS.

Letter I51

April 8, 2013

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

Subject: Comments on Upper Truckee River and Marsh Restoration Project (Project)

Reference: DRAFT Environmental Impact Report/ Environmental Impact Statement/ Environmental Impact Statement, "Upper Truckee River and Marsh Restoration Project" SCH# 2007032099, February 2013 (Report)

Notes: Terminology introduced in the Report (reference above) will be used here without further explanation.

Please withhold my home address from public disclosure to the extent allowed by law

Scott and whom it may concern:

My wife and I are full time residents and owners of a home on California Avenue, in th1e Tahoe Island Park 4 subdivision. Our home is on the west side of the Upper Truckee River, directly facing the river near RS 1700. Our home is one of the closest residences, if not the closest, to the river in the Project Study Area. Its present river setting in every way dominates and defines its aesthetic value. This river setting is the primary reason we purchased this property more than 26 years ago and live here full time, year round. The other reason is the privacy and peacefulness of this parcel, surrounded on all sides by undeveloped and presumably undevelopable parcels. The potential Project staging site designated in the Report as "California Ave. Access Point and Staging 0.8 Ac" is directly adjacent to our property on one or more of those presumably undevelopable parcels. I51-1

We are strong supporters of the Project purpose and objectives stated in the Report. We are submitting the following comments as constructive suggestions in the hopes of assisting you to develop a project that will achieve the stated purpose and objectives with minimal undesirable impacts.

We have structured our comments as follows:

- Topic (heading)
- Background
- Specific issues concerning that topic
- Specific suggestion(s), if any, for addressing the issues

If, after the Agencies respond to public comments, a suggestion here is not accepted, or an issue here is not otherwise resolved in our estimation, then any such issue will remain as a formal specific objection by us to the Report and/or Project.

1

Topic 1: Use of CTC lots on or near California Avenue as a Project staging site and use of California Avenue as a haul route

Background: The Report, Section 2.6 "Construction" and Exhibits 2-5 to 2-8 "Storage and Access Plan" for each Action Alternative (the exhibits are maps), show:

- One or more CTC lots on or near California Avenue as an access point and staging site called "California Ave. Access Point and Staging 0.8 Ac"
- California Avenue as the only "haul route" on public roads to this staging site

The Report allows these uses to occur at any time, or continuously, from 8 AM to 6:30 PM, daily, for four years. We submit that each, or any, of the issues below is sufficient to require the removal of the above two construction options from the final Project.

Issues

1. Disruption of established neighborhood values in Tahoe Island Park 4 subdivision during construction: this is a peaceful small residential neighborhood and has been so for over 50 years. The proposed California Ave Staging site makes use of small, undeveloped residential lots in the neighborhood acquired by the CTC because of, and to prevent infringement on, their environmental sensitivity and natural state. The neighborhood had a reasonable expectation that these lots would always be peaceful natural neighborhood parcels and that they would never be used by the CTC or anyone else as a construction site for staging heavy equipment and fill materials. In fact, in conservation easements that the CTC accepted in lieu of purchase for lots of this type, such use is forever barred to the owner. The fundamental aesthetic nature of the neighborhood would be devastated for four years by use of these lots as construction staging sites for equipment and materials. Furthermore, California Avenue is a small street used by the residents for strolling and as an informal playground and meeting area for chats. The impact of this possible staging site to reasonable established neighborhood lifestyle and quality of life values is not recognized or assessed in the Report. We strongly object to use of the subject CTC lots, and California Avenue, by the Project, for staging, hauling, or similar construction purposes. It should not even be considered further without analysis of the impacts discussed above (and below), mitigations thereof, and subsequent public comment I51-2
2. Traffic in Tahoe Island Park 4 subdivision during construction: California Avenue, the only designated haul route in this subdivision, is one of its, and the city's, narrowest streets. California Avenue is heavily used by residents, people walking with their children and pets, other pedestrians, and bicyclists. The street is too narrow for large vehicles to pass each other or turn around, or even for normal vehicles to navigate without evasive maneuvers. When cars are parked along it, it is effectively single lane. Yet the Report assesses the short-term potential for conflict between construction traffic, local traffic, pedestrians, and bicycles as Less Than Significant, No Mitigation Needed. This traffic impact finding defies common sense. It does not address the residential nature of the neighborhood and the features of this particular street. Traffic impact assessment discussions in the Report cite only the Al Tahoe, Hidden Woods, and Tahoe Keys Neighborhoods, but not the TIP4 neighborhood; there is no evidence traffic I51-3

2

impact was assessed in this neighborhood. For this neighborhood, we strongly disagree with this finding, and assert that the analysis it is based on is inadequate. We strongly request that California Avenue not be used for hauling and similar construction traffic. I51-3 cont.

3. Noise in Tahoe Island Park 4 subdivision during construction: this is a quiet residential neighborhood with full time residents a mixture of retirees, young families, and assorted others. Use of California Avenue as a haul route, and CTC neighborhood lots for the California Avenue Staging site, will generate abnormal and unacceptable local noise preventing my, and my neighbors', reasonable use and enjoyment of our homes and property. The Report states this noise could occur at any time, or continuously, from 8 AM to 6:30 PM, daily, for four years. Nevertheless, the Report assesses the short-term noise impact, for all project alternatives, as Less Than Significant, No Mitigation Needed. This finding defies common sense for significant residential impact here. The locations and streets cited in Appendix J of the Report as having been analyzed for noise impact do not include any streets or locations in the vicinity of California Avenue or its proposed staging site. We strongly disagree with this finding for this neighborhood and consider the noise impact analysis for this neighborhood **inadequate** since it does not include any nearby locations. We strongly request that California Avenue not be used for hauling and similar construction traffic because of the unacceptable noise impact to residents and the neighborhood. I51-4
4. Neighborhood safety in Tahoe Island Park 4 subdivision during construction: construction activity on the subject CTC lots in conjunction with neighborhood children playing near their homes creates a safety hazard that does not appear to be identified or analyzed in the Report. We strongly object to unnecessary multi-year heavy construction activities, traffic, and equipment in the neighborhood and feel that the Report has not adequately assessed the impact of this proposed use to the safety of neighborhood children. *Will a four year old neighborhood child not be able to play catch outside his or her home in the summer until he or she is 8?* I51-5
5. Unclear and Infeasible specification of California Avenue staging site and haul route in Report: The Report, Exhibit 1-2, shows several parcels near the intersection of California Avenue and Michael as CTC property. One of these parcels actually is located on California Avenue. The others are located on Michael. The construction maps and discussion in the Report, particularly Exhibits 2-5 to 2-8, refer to a "California Ave. Access Point and Staging 0.8 Ac". The arrows on these maps designating this site point to the CTC parcel on California Avenue. However, this parcel is not even close to 0.8 Ac in size. The Report may intend that all the CTC lots in this area comprise the "California Ave. Access Point and Staging 0.8 Ac" since together they might total 0.8 Ac. In that case, however, the only haul route designated in the Report, California Avenue, would not access most of the potential staging site (none of the parcels on Michael are contiguous with the California Avenue CTC parcel). No other public street in Tahoe Island Park 4, particularly Michael, could be used as a haul route to access these lots, since this is not described or assessed in the Report. Consequently the Michael Street CTC parcels could not be used for staging. And then the subject staging site in the Report is not 0.8 Ac. Consequently, the Report, I51-6

3

as now written, inadequately and ambiguously describes the "California Ave. Access Point and Staging 0.8 Ac". This ambiguity prevents reasonable comment on this use. We oppose further consideration of the various CTC lots in question as potential staging sites until the ambiguity, including haul routes and specific lots, is clarified. There are numerous issues with using either the California Avenue CTC parcel or the Michael CTC parcels, but specific comments require knowledge of which lots are being proposed in the Report. We strongly oppose the use of any of the subject lots for staging, and assert that the present Report is inadequate to permit approving this use because it is too ambiguous and inaccurate to allow the public to assess and comment on the use. I51-6 cont.

6. Failure to directly notify California Avenue residents and property owners the street in front of their home was being considered as a haul route: even though our California Avenue neighbors are potentially highly impacted by Project construction and located directly on a haul route, they were not directly notified of the Report or public comment period. Most of them were not even aware of this proposed use until we informed them of it in the last two days. Even if agency outreach and notification for the Project satisfied the letter of the law, and we don't know that it did, it certainly did not satisfy the spirit of notifying impacted parties so they could comment. We assert that the notification process has been inadequate and ineffective, near the potential California Ave Staging site, and consequently the use of this site for staging and California Avenue for hauling should not be approved until proper notification and comment period are provided. I51-7
7. California Avenue CTC parcel is inadequate and inappropriate for a staging site: the California parcel has occupied homes a few feet away on either side. Choice of this site, as opposed to virtually all other possible staging sites available to the Project for this purpose, maximizes the residential and aesthetic impact of staging. This parcel also has private land behind it, preventing access from it to the river without impacting other private property and securing additional permissions, increasing the impact on the public of the choice. The lot is so small that construction vehicles could not physically maneuver on it, particularly if material or other equipment is stockpiled on it as described in the Report. Construction vehicle access to it from California Avenue, the designated haul route, would require an enormously wide driveway to be constructed to accommodate the large turning radii of such vehicles and would disrupt traffic on both California and Michael. Approaching traffic, particularly on Michael, would have difficulty in seeing construction vehicles entering and exiting the parcel, due to existing trees not on CTC property. We strongly oppose the use of this parcel for staging or similar heavy construction use because of its highly excessive and unnecessary impacts on local residents and traffic I51-8
8. The internal haul road shown from the California Avenue CTC parcel to the river maximizes the impact to our home and renders it virtually unusable: We are particularly concerned about the internal haul route shown from this parcel to the river. It goes directly in front of, and within a few feet of, our house. It is directly in front of the picture windows lining the back walls of our living room and dining room. It is even closer to our deck that we use for meals and entertaining. I51-9

When it is in use our view of the river would be blocked; dust would be generated and dispersed on our deck, house, and windows; and the noise would make our backyard unusable and require us to keep our windows closed. When not in use, the present beautiful, undisturbed, vegetated terrain would be a desecrated eyesore. The Project would attempt to "restore" the parcel and this internal access route from it to the river on Project conclusion, but it is unlikely that either would ever be what they are now. This impact would render our house virtually uninhabitable and unusable to us for four summers and impaired for years after. I51-9 cont.

Suggestions:

1. Do not use the Tahoe Island Park 4 neighborhood, and particularly California Avenue and the CTC lots in the vicinity of California Avenue and Michael, for Project staging and hauling or other heavy construction activity. This eliminates every issue stated above. The CTC has other alternatives for siting and hauling that not only avoid all the issues and impacts cited here, but are practical and of comparable or less environmental impact. One of these that seems particularly attractive is use of CTC land on East Venice near Cove East for primary access and staging, and moving material and equipment from there to active work areas on internal haul routes such as those already planned. This eliminates the need for an internal haul route from California Avenue to the river, an environmental benefit. In addition, use of internal haul routes on the east side of the river whenever possible would minimize residential impact since most nearby occupied neighborhoods are on the west side. Internal haul route restoration after Project completion is already in the plan. Using indicated access points in the report just for personnel, and limited associated transportation vehicle parking, would not be an unusual or objectionable impact to us. I51-10
2. Alternatively, if the Project decides to retain the "California Ave. Access Point and Staging 0.8 Ac" and California Avenue as the only "haul route" to it, issue an updated and corrected environmental impact report addressing the above issues.

Topic 2: Flood Risk

Background: A primary project objective is more frequent (e.g., annual) river over-banking (flooding) from the bridge to the lake. Since much of TIP4 is in or near the FEMA 100-year floodplain, and already flood-prone, changes to present flooding patterns here are of concern to TIP4 residents. The models cited in the Report predict no increased residential flood risk from any Action Alternative as a result of the Project.

Issues:

1. Model uncertainty and reliability is not provided in the Report: for the public, or anyone else, to assess the quality of the finding that residential flood risk will not be increased by the project for any Action Alternative, first the uncertainty in the calculated results should be provided. What is uncertainty, in both calculated floodplain area and mean flood height, calculated by that model given data uncertainties and assumption uncertainties? Then, what is the reliability or confidence level placed in that model – has it been fully validated for this site and application? (Best efforts and state-of-the-art do not mean accurate and reliable.) I51-11

5

2. Has the potential damage and financial risk been estimated, in case the models prove incorrect? If the Project accepts the model results and proceeds, has it calculated the potential damages and costs that could result if the models underestimate flood extents by various amounts?
3. Would the lead Agencies be responsible, and have the funds, to financially compensate the property owners if the models are wrong? I51-12

Solution:

1. Estimate a conservative modeling error value and the corresponding financial risk and secure adequate insurance, or the equivalent, for that amount.

Topic 3: Miscellaneous Issues (Fire, Wildlife, Key Features, RS 1400 diversion point)

Background: the following issues are of concern to us and do not appear to be adequately addressed in the Report.

Issues and Solutions:

1. Increased fire risk due to additional fuel load: all Action Alternatives in the Report include extensive willow planting. Eventually these new willows will generate considerable dead limbs, increasing the fuel load along the river and the potential for this fuel to carry a wildfire into the developed residential neighborhoods. We don't think this impact has been adequately assessed in the Report. We recommend that a regular fuel load and fire risk inspection agreement and management plan be instituted with the cognizant fire fighting authority, analogous to the mosquito management plan now in the report. I51-13
2. Impact to non-endangered wildlife species: the wildlife environmental impact assessment in the Report addresses only endangered species. The study area, including the areas directly in front of our property, contain many non-endangered species that we and other members of the public treasure. Some of these are bears, coyotes, beavers, weasels, otters, mink, herons, owls, hawks, eagles, countless other bird species, rodents, and numerous others. The impact of a four year project with habitat destruction and intense human activity on wildlife nesting and breeding, may eliminate or greatly reduce the numbers some of these species, where a shorter project would not. This is particularly true on the private property in the upper reaches of the study area, because these areas are now wooded and secure sanctuaries for some of these species. We believe the Report has not adequately assessed the impact to the non-endangered species in the study area. We recommend that the project scale and duration be reduced where possible to limit the negative impacts to, and possible loss of, these non-endangered species. I51-14
3. Key features of value not noted in the Report:
    a. Near RS1700, directly in front of our house, there is a moderate sized lone lodgepole pine within ~10 feet of the low water channel on the west bank. This tree is a favorite and heavily used perch for many raptors, including hawks, owls, and the occasional eagle. We bring this tree to your attention and strongly recommend that it be protected during construction to preserve its beneficial function to local raptors. I51-15

b. There is a Blue Heron that annually frequents the river near RS1700 and downstream. We have been observing it for years. We bring this to your attention in the hopes that you can avoid harming it or totally preventing its use of this area. I51-15 cont.

4. RS 1400 is incorrectly shown as the diversion point to a new low water channel in some early maps of Alternatives 1 and 3 in the Report, whereas more recent maps and all detailed discussions in the Report show the point as RS 1700: we have been assured by CTC personnel that the recent maps and RS 1700 are correct. We strongly assert that only RS1700 would be acceptable to us and diverting the present low water channel at RS 1400 would enormously devalue our property. I51-16

Topic 4. Personal Project Preference

1. Our Preferred Action Alternative and/or Features: Our mutual preferred alternative is Alternative 3, Middle Marsh Corridor, but with 1) the point of diversion from the present low water channel not at RS1700, but on CTC property downstream of the Dunlap Ranch and 2) the recreation features to include the bike trail segment connecting Hidden Woods to Al Tahoe. With these modifications we feel Alternative 3 would
   - prevent all the negative impacts and concerns of private property owners in the upper reaches of the study area such as ourselves, the Dunlap Ranch owners, and out TIP4 neighbors
   - reduce project cost and complications to the CTC and its partner agencies by a large factor, since the project would be smaller and less involved and would not require negotiations with private parties
   - provide a large fraction of the environmental benefits of the version of Alternative 3 in the Report now at considerably reduced cost and reduced negative impact. I51-17
   - move minimal amounts of soil to implement
   - establish the most natural wetlands closest in spirit to the original condition of the marsh

   The river already overbanks regularly near RS 1700 (photos available) and onto the Dunlap Ranch, so active floodplains in this reach may already be adequate, and seem larger than indicated in the Report.

   Work near the US50 bridge and in the west-side old floodplain just downstream could still be done. Repair and strengthening of problem bank spots between RS 1400 and the new diversion point into the west meadow could also be done, if either is deemed necessary.

   It also would be nice to try to reattach the sailing lagoon to the new river channel to provide more marsh, wetlands, floodplain, and settling area, and eliminate the negative aspects of the present sailing lagoon, such as invasive species.

   Finally, the bicycle path between Al Tahoe and Hidden Woods would be a wonderful addition to navigate between the neighborhoods and between present

lake access points in Al Tahoe and the Keys, without the need to go up to US50 which is not a pleasant place to ride for adults or children. We would use it a lot.

We think this modified version of Alternative 3 is really good and well balanced and would make a highly beneficial project.

I51-17 cont.

Respectfully submitted,

John T. Rosenberg (Tom)

Catherine M. Rosenberg (Cass)

8

Letter
I51
Response

John T. & Catherine M. Rosenberg
April 8, 2013

I51-1 The commenters' support of the project purpose and objectives is noted. The commenters state that the comments are constructive suggestions to help achieve the stated purpose and objectives.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I51-2 The commenters' concern about the disruption of established neighborhood values in the Tahoe Island Park 4 subdivision during construction is noted. The Preferred Alternative would use main arterials to access the study area, such as U.S. Highway 50 (Lake Tahoe Boulevard), Venice Drive, and Tahoe Keys Boulevard. Some activities would require the use of Silver Dollar Avenue, Silverwood Circle, Rubicon Trail, and Springwood Drive, as well as Lakeview Avenue and Lily Avenue to access the eastern lakeshore area. Staging and the majority of hauling would occur within the study area as shown in Exhibit 2-2 in Chapter 2, "Project Description," of this Final EIR/EIS/EIS. The Preferred Alternative does not propose construction staging areas or access points on California Avenue and staging on Conservancy parcels in the neighboring communities has been removed to avoid conflicts of use. Haul routes have been selected to occur immediately adjacent to construction areas and access points, and staging areas have been identified, in part, to minimize construction activities and hauling within sensitive habitats.

See Section 3.1.2, "Traffic, Access, and Staging," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for further discussion.

I51-3 The commenters' concern about construction-related traffic in the Tahoe Island Park 4 subdivision during construction is noted. As stated above, the Preferred Alternative does not include haul routes in the Tahoe Island Park 4 subdivision; therefore, there would be no conflicts related to traffic on California Avenue.

See Section 3.1.2, "Traffic, Access, and Staging," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for further discussion of construction-related traffic.

I51-4 The commenters' concern about construction-related noise in the Tahoe Island Park 4 subdivision during construction is noted. As described above and in Section 3.11, "Noise," of the Draft EIR/EIS/EIS, traffic typically must double to create a perceptible increase in overall traffic noise. Project construction would not contribute to a doubling of traffic on U.S. Highway 50 or Tahoe Keys Boulevard, and therefore would not generate a perceptible increase in overall traffic noise levels. General construction activities would generate perceptible increases in noise levels above ambient conditions that would exceed applicable noise thresholds (50 and 55 A-weighted decibels) within 2,500 feet for the Preferred Alternative. However, as described in Section 3.11, noise from construction activity is exempt from the provisions of the applicable TRPA regulations and applicable El Dorado County regulations if conducted within the allowable hours. Therefore, consistent with the action alternatives presented in the Draft EIR/EIS/EIS, the impact under the Preferred Alternative would be less than significant.

The State CEQA Guidelines require that an EIR describe any feasible measures that could minimize significant adverse impacts, and the measures are to be fully enforceable through permit

conditions, agreements, or other legally binding instruments (State CEQA Guidelines, Section 15126.4[a]). Mitigation measures are not required for impacts that are found to be less than significant. NEPA requires that an EIS identify relevant, reasonable mitigation measures that are not already included in the project alternatives that could avoid, minimize, rectify, reduce, eliminate, or compensate for the project's adverse environmental effects (40 CFR 1502.14, 1502.16, 1508.8). The analysis of the proposed project is consistent with these requirements.

See Section 3.1.3, "Construction Noise," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for further discussion of construction-related noise.

I51-5 The commenters' concern about the use of parcels on or near California Avenue as an access point, staging area, and haul routes creating a safety hazard in the Tahoe Island Park 4 subdivision during construction is noted. As stated above, the Preferred Alternative does not include haul routes, staging areas, or access in the Tahoe Island Park 4 subdivision; therefore, there would be no safety hazards associated with construction on California Avenue.

I51-6 The commenters' concern about haul routes and staging areas on California Avenue is noted.

See responses to Comments I8-1 and I51-2, as well as Section 3.1.2, "Traffic, Access, and Staging," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for further discussion.

I51-7 The commenters' concern that notification was not provided to Tahoe Island Park 4 subdivision residents is noted. The Project mailing list was developed by obtaining the most recent County Assessor's information as well as contact information provided through outreach over the life of the project. The commenter's address on the list developed for noticing. For privacy purposes the address has been withheld in this Final EIR/EIS/EIS.

See responses to Comments AO2-4 and I8-6 for a discussion of the project's history, planning context, and public outreach.

I51-8 The commenters' concern about staging sites on California Avenue is noted.

See responses to Comments I8-3 and I51-2, as well as Section 3.1.2, "Traffic, Access, and Staging," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for further discussion.

I51-9 The commenters' concern about the use of California Avenue as a haul road is noted. As stated above, the Preferred Alternative does not include haul routes on California Avenue.

See responses to Comments I8-3 and I51-2, as well as Section 3.1.2, "Traffic, Access, and Staging," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for further discussion.

I51-10 The commenters suggest that no staging or hauling roads be located on or in the vicinity of California Avenue and Michael Avenue. As stated above, the Preferred Alternative does not include haul routes on California Avenue. In addition, Michael Avenue would not be used as a haul route.

See responses to Comments I8-3 and I51-2, as well as Section 3.1.2, "Traffic, Access, and Staging," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for further discussion.

I51-11 The commenters are concerned about potential increased flood risk to the Tahoe Island Park 4 subdivision, lack of certainty in flood modeling, and lack of assessment of flood damages and financial liability for potential damages.

See Section 3.1.1, “Flooding and Flood Hazards,” in Chapter 3 of this Final EIR/EIS/EIS for further discussion on flooding. The analysis of the proposed project is consistent with CEQA, NEPA and TRPA requirements because the project would not change the existing flood hazards of the surrounding properties. See “Flooding and Flood Hazards,” in Chapter 3, “Master Responses,” of this Final EIR/EIS/EIS. The analysis of the proposed project is consistent with CEQA, NEPA and TRPA requirements because the project would not change the existing flood hazards of the surrounding properties. See “Flooding and Flood Hazards,” in Chapter 3, “Master Responses,” of this Final EIR/EIS/EIS. Furthermore, financial responsibility for flood damages is not an issue relating to effects on the environment that requires an analysis under CEQA.

I51-12 The commenters inquire about whether the lead agencies would take financial responsibility for flood damages if the models are incorrect.

See Section 3.1.1, “Flooding and Flood Hazards,” in Chapter 3 of this Final EIR/EIS/EIS for further discussion on flooding. The analysis of the proposed project is consistent with CEQA, NEPA and TRPA requirements because the project would not change the existing flood hazards of the surrounding properties. See “Flooding and Flood Hazards,” in Chapter 3, “Master Responses,” of this Final EIR/EIS/EIS. Furthermore, financial responsibility for flood damages is not an issue relating to effects on the environment that requires an analysis under CEQA.

I51-13 The commenters’ concern about fire risk is noted. See response to Comment AO2-10 for information about fire risks associated with the project.

I51-14 The commenters’ concern about impacts on nonendangered wildlife species is noted. Section 3.4, “Biological Resources,” of the 2013 Draft EIR/EIS/EIS acknowledges that construction activities would affect both common and special-status wildlife species by the same mechanisms: (1) human disturbance (i.e., the sounds and motions of construction workers and machinery) that disrupts foraging, nesting attempts, or other wildlife use of the study area and concurrently causes physiological stress, energetic costs, and increased risk of predation; and (2) damage and removal of vegetation by clearing and grubbing, stockpiling of materials and soil, off-road operation of vehicles and other machinery, and earthwork that destroys nests or roost sites or harms or kills wildlife. However, as stated in chapter 5, Compliance, Coordination, and Consultation the project will comply with the Migratory Bird Treaty Act (MTBA) and complete pre-construction bird surveys in order to avoid direct loss of birds, nests, and eggs. The current list of species protected by the MBTA includes several hundred species, which essentially includes all native birds. Furthermore, construction activities would be temporary, restricted daily from 8:00 a.m. to 6:30 p.m. Monday–Friday, and restricted seasonally to May 1–October 15 (or a more limited period if a limited operation period is necessary to avoid effects to sensitive wildlife).

The increased area and improved ecosystem functions of SEZ, floodplain, and riparian and wetland communities along the Upper Truckee River under the Preferred Alternative would benefit wildlife communities. This long-term effect would be beneficial.

As discussed in Chapter 2, “Project Description,” of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation, similar to existing conditions on the west side of the marsh and no additional recreation access on the marsh’s east side. .

I51-15 The commenters’ request to avoid the lodgepole pine and protect the area near River Station (RS) 1700 is noted.

Environmental Commitment 5, “Prepare and Implement Effective Construction Site Management Plans to Minimize Risks of Water Quality Degradation and Impacts to Vegetation,” includes tree protection measures.

I51-16 The commenters support diverting the present low-water channel at RS 1700.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I51-17 The commenters' support for Alternative 3 is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative.

Letter I52

April 24, 2013

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

Subject: Additional Comments on Upper Truckee River and Marsh Restoration Project (Project) – Addendum to our Comment Letter of April 8, 2013

Reference: DRAFT Environmental Impact Report/ Environmental Impact Statement/ Environmental Impact Statement, "Upper Truckee River and Marsh Restoration Project" SCH# 2007032099, February 2013 (Report)

Notes: Terminology introduced in the Report (reference above) will be used here without further explanation.

Please withhold my home address from public disclosure to the extent allowed by law

Scott and whom it may concern:

As noted in our first comment letter

- My wife and I are full time residents and owners of a home on California Avenue, in the Tahoe Island Park 4 subdivision. Our home is on the west side of the Upper Truckee River, directly facing the river near RS 1700. Our home is one of the closest residences, if not the closest, to the river in the Project Study Area.
- We are strong supporters of the Project purpose and objectives stated in the Report. As with our earlier comments, we are submitting the following additional comments as constructive suggestions in the hopes of assisting you to develop a project that will achieve the stated purpose and objectives of the Project with minimal undesirable impacts. I52-1

The present letter contains additional comments adding to those provided in our initial joint comment letter dated April 8, 2013. All comments in the initial letter still stand. The topic numbering here continues that used in the initial letter (i.e., does not restart at 1).

We are submitting these additional comments by email on April 26, 2013, pursuant to your email of 4/4/2013 stating that since the NEPA comment period does not end until April 26, 2013, you will honor any comments received until 4/26/2013.

Topic 3: Miscellaneous Issues (Fire, Wildlife, Key Features, RS 1400 diversion point, and following additions)

Background: the following issues are of concern to us and do not appear to be adequately addressed in the Report.

1

Issues and Solutions:

5. Signage at boat launch and take out locations: if the Project installs boat take outs or launches, it is effectively endorsing and encouraging watercraft use on the river. Consequently, it has an obligation to control the behavior of these parties or at least inform them of the relevant ordinances. At present, there are no restrooms along the river and no signage to that effect, or about respect for nearby residents, at the present informal launch points. As a result many of the rafters are extremely noisy and a considerable number urinate on the river banks, in plain sight of residences. This impact is not adequately identified, analyzed, or mitigated in the Plans in the Report. Please put in restrooms and trash receptacles and/or signage regarding noise, littering, and public urination. I52-2
6. Inadequate accounting for impact to individual city residents: This project is mainly or totally within a developed city, the city of South Lake Tahoe (CSLT). Consequently there may be project or construction impacts to single individuals that are of enormous consequence to the individual whose home is near what is reasonably expected to be a peaceful and protected setting. Examples include, but are not limited to construction noise, dust, and other effects, short and long term changes in character, aesthetic quality, and usefulness of home and yard, similar changes to nearby undeveloped and protected properties and terrain, etc. The Report does not appear to recognize or adequately analyze such impacts to residents. Apparently, on the scale used in the Report, such effects may be classified as LTS (Less Than Significant), either because they are short term (a few years) or because the detrimental effect is to only a few members of a non-endangered species (people, specifically local residents and their homes). Impacts to such directly effected residents should be analyzed and weighted differently than was done in the Report. Impacts to single individuals who have no recourse to avoid the impacts because they reside in the Study Area, and for whom the impacts are highly significant, should be weighted at least as heavily significant impact to individual members of an endangered species. The Report does not adequately recognize or analyze impact to individual residents, and it should, ethically and legally. Many of the effects analyzed as LTS in the Report would be catastrophic to individuals, and should be so identified and should be mitigated. I52-3
7. Effect of Seismically Generated Waves not adequately assessed: The Report primarily or solely addresses the effects of such waves on Project infrastructure improvements and on people and structures in the study area. It does not address the potential effects on existing nearby residences and other personal or public improvements, and it does not distinguish between the alternatives with respect to such effects. The impact analysis should address this issue and distinguish between the alternatives, both short and long term. I52-4
8. Preservation of existing or future "small" paths: Some local residents enjoy their experiences in the study area to be quiet and away from "infrastructure" and other such improvements. The recreation plan does not adequately address or allow for this activity. Please ensure that some unimproved, quiet, small, peaceful paths (footpaths) in some of the more remote parts of the study area are included, or at least tolerated, in the Plan. I52-5

9. Excessive number of "large" paths: Many of the proposed recreation paths and boardwalks in the Cove East and Al Tahoe area are 8' to 10' wide. A width of 10 feet will result in a significant amount of coverage in the study area and will feel excessive, unappealing, unnecessary, and out of place to many. Please consider whether the need for public recreational infrastructure can be satisfied with lower width paths in some areas. This would avoid overdeveloping and over covering what is meant to be a relatively natural environment. I52-6

10. The description of alternatives is too vague to allow effective public comment at this time: The five Project alternatives are described in a number of places in the Report, including, but not limited to, the Executive Summary, Chapter 2, and Appendix C. There are notable inconsistencies and contradictions in the various descriptions. This is understandable considering that the Report was generated over a number of years and also is not intended to represent the fully developed and designed features. In addition, the Report states, though not prominently, that features and elements in an alternative may be interchanged among alternatives in selecting the preferred alternative. Taking together the effects of different substantive descriptions of the alternatives in different locations, and the lack of cohesiveness of the alternatives as described, the Project final plan is very vague. There is a possibility, in fact a strong likelihood, that the preferred alternative, when it is selected, will look very different from, and have a very different impact than, any of the alternatives as described and analyzed in the Report. Furthermore, this is probably not well understood by a significant percentage of the public. This lack of clarity in the final alternative makes it very difficult, or impossible, for the public to effectively comment on the Project and Report, since all the alternatives are fluid, details of the alternatives are inconsistent in some places, and impacts depend on well-specified individual features and specific linkages of the features. Please consider another public comment period when a preferred alternative is selected and can be more clearly described. I52-7

Topic 4. Personal Project Preference

2. Our New Preferred Action Alternative and/or Features: In our previous letter we described our personal preference for a preferred alternative. We still like that alternative. However, we now believe that the alternative described below would be even better and is our new mutual most preferred alternative:

   Our new top suggestion is Alternative 3, Middle Marsh Corridor, but with three modifications ("Alternative 3, Middle Marsh Corridor – Split Channel") I52-8

   - The present low water channel, starting at RS 1700 to about RS 3100 should be only partially filled, not totally filled, so it could still function as a high water channel, and a new shallow connection channel from RS 3100 should link it to the new pilot channel
   - The use of TIP4 California Ave lots as staging sites, and California Avenue as a haul route should be replaced with use of 1) sites at Cove East and near the US50 bridge as main staging sites and equipment I52-9

3

access points and 2) primarily east side internal haul routes to access work areas from these two main access points. I52-9 cont.

- The recreation features of Alternative 3 should include a small or informal bike trail segment connecting Hidden Woods to Al Tahoe I52-10

With these modifications we feel Alternative 3, which we call Alternative 3 - Split Channel, would provide all the advantages of Alternative 3 described in the Report, and also would

a. Be technically feasible and comparable in construction cost to the unmodified alternative
b. Provide additional flood protection to our TIP4 neighborhood, not provided by the present Alternative 3, via the supplemental high water shallow overflow channel starting at RS 1700
c. Be more compatible with the CSLT storm water management plans for the TIP4 neighborhood, which may require drainage ditches from Washington and Colorado Streets to the river channel I52-11
d. Avoid all the negative impacts and concerns of private property owners in the upper reaches of the study area such as ourselves, the Dunlap Ranch owners, and out TIP4 neighbors
e. Establish the most natural wetlands closest in spirit to the original condition of the marsh

We think this modified version of Alternative 3 is well balanced and would make a highly beneficial project. It is our most preferred alternative.

Respectfully submitted,

John T. Rosenberg (Tom)

Catherine M. Rosenberg (Cass)

4

Letter
I52
Response

John T. & Catherine M. Rosenberg
April 24, 2013

I52-1 The commenters state that the letter provides additional comments to the previous letters submitted on April 8, 2013.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I52-2 The commenters' concern about boat launches, increases in boaters, and the ability of the Conservancy to enforce ordinances is noted. Given the sensitive nature of the marsh, restrooms were not considered as part of the project. As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh and no additional recreation access on the marsh's east side.

The Preferred Alternative includes posting of signs educating users regarding trail etiquette and trespass issues; increased monitoring to reduce litter, trespass, or other problems associated with trail access parking; and increased use of fencing to better direct users to access points. Also, the Conservancy funds the Tahoe Resource Conservation District to contract with the Clean Tahoe Program for trash removal services, including weekly inspection and maintenance of 12 garbage cans located throughout the property. In addition, the Preferred Alternative would include installation of additional signage in appropriate locations throughout the site and near sensitive habitats to discourage disturbance of those areas by people and pets.

See Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for a discussion of trash pickup, animal control services, and police protection services in the study area.

I52-3 The commenters' concern that the Draft EIR/EIS/EIS does not evaluate impacts on individual residents during construction is noted. See Section 3.1.2, "Traffic, Access, and Staging," and Section 3.1.3, "Construction Noise," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for further discussion of construction-related impacts.

I52-4 The commenters are concerned that the effects of seismically generated waves are not adequately addressed relative to the surrounding residences or other personal or public improvements.

As discussed in Section 3.8.1 in Section 3.8, "Hydrology and Flooding," of the 2013 Draft EIR/EIS/EIS, recent investigations of tectonic and seismic conditions in the Lake Tahoe region indicate the potential for earthquakes from three active normal faults of the magnitude that could produce waves on Lake Tahoe on the order of 10–30 feet. Earthquakes in the Lake Tahoe region shift fault blocks vertically, causing shoreline subsidence and subsequent inundation (Ichinose et al. 2000; Seitz 2014). The likelihood of such an event has been estimated to be between 10 and 12 percent (NESC 2007). None of the action alternatives would change the likelihood of a seismic event occurring or probability of tsunami or seiche waves resulting.

As discussed in Section 3.8, certain action alternatives include recreation infrastructure and/or restoration features that could be damaged by wave action or overrun. The Preferred Alternative does not include vulnerable recreation infrastructure along and parallel to the shoreline as in

Alternative 1. Final design of any structural elements of the Preferred Alternative (e.g., grade control structures, lagoon bulkhead) would meet standard engineering criteria for seismic stability. The recreational infrastructure under the Preferred Alternative would be concentrated in a portion of the study area that already has urban development and similar recreational facilities, including residential housing and a marina, and would not introduce new influences on the potential risk of seismically generated waves or their pathways. The project would not modify the topography of the floodplain or channels in ways that could substantially modify the probability, magnitude, or routing of a seismically generated wave from the lake relative to the neighborhoods surrounding the project boundary.

I52-5 The commenters' opinion that small paths should be preserved is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh and no additional recreation access on the marsh's east side. Public access to the east side of the marsh would continue to be afforded through the current informal user-created trail system.

I52-6 The commenters' opposition to large paths is noted.

See response to Comment I52-5 above.

I52-7 The commenters' statement that the description of the project alternatives is vague is noted. The commenters state that because features and elements in an alternative may be interchanged among alternatives in selecting the preferred alternative, the preferred alternative will have a very different impact than any of the alternatives as described and analyzed in the Draft EIR/EIS/EIS.

The Draft EIR/EIS/EIS adequately describes and analyzes the Project Alternatives, providing the public an informed opportunity to comment on the proposed improvements. By presenting and evaluating all of the possible actions within the environmental documents, we have fully disclosed the impacts that could occur if all actions were taken. There would not be additional adverse effects relative to baseline if some or all of the features on private land did not occur. The nature and severity of the impacts analyzed in the environmental document adequately encompass potential impacts of the recommended alternative. See response to Comment AO8-2 for a discussion of the selection of the Preferred Alternative, and Appendix D of the Final EIR/EIS/EIS for additiona responses to this comment.

I52-8 The commenters support a modified Alternative 3. Specifically, the commenters would prefer that the existing low-water channel be partially filled, not entirely filled, and that a new shallow-connection channel be created from RS 3100 that would link to the new pilot channel.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative.

The restoration element of the Preferred Alternative (described in Chapter 2 and illustrated in the schematic plans in Appendix A) is based on Alternative 3; however, modified to place the pilot channel on State-owned lands (near RS 32+00). The partial backfill of the existing oversized channel has been iteratively determined using the 2D hydraulic model to optimize for restoration of a functional floodplain swale surface while preventing any adverse changes to flooding. (See Section 3.1.1, "Flooding and Flood Hazards," in Chapter 3, "Master Responses," for further discussion of the modeling.)

I52-9 The commenters' suggestions about relocating haul roads and staging areas is noted. The Preferred Alternative would use main arterials to access the study area, such as U.S. Highway 50 (Lake Tahoe Boulevard), Venice Drive, and Tahoe Keys Boulevard. Some activities would require the use of Silver Dollar Avenue, Silverwood Circle, Rubicon Trail, and Springwood Drive, as well as Lakeview Avenue and Lily Avenue to access the eastern lakeshore area. Staging and the majority of hauling would occur within the study area as shown in Exhibit 2-2 in Chapter 2, "Project Description," of this Final EIR/EIS/EIS. The Preferred Alternative does not propose construction staging areas or access points on California Avenue and staging on Conservancy parcels in the neighboring communities has been removed to avoid conflicts of use. Haul routes have been selected to occur immediately adjacent to construction areas and access points, and staging areas have been identified, in part, to minimize construction activities and hauling within sensitive habitats.

See Section 3.3.2, "Traffic, Access, and Staging," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for further discussion of staging areas and access to the study area.

I52-10 The commenters' suggestion for a small or informal bike trail segment connecting Hidden Woods to Al Tahoe is noted.

The Preferred Alternative does not include additional recreation access on the east side of the marsh. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I52-11 The commenter's support for a modified version of Alternative 3 is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative.

Letter I53

From: Alia Selke [aliaselke@hotmail.com]
Sent: Sunday, April 07, 2013 11:51 PM
To: Carroll, Scott@Tahoe
Subject: Comments on Draft EIR/EIS for Upper Truckee River/Marsh

April 7, 2013

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

COMMENTS ON DRAFT EIR/EIS FOR UPPER TRUCKEE RIVER AND MARSH

Dear Mr. Carroll,

I am writing to comment on your Draft EIR/EIS for restoring the Upper Truckee Marsh and River. My specific concerns relate to the accessibility of recreation opportunities for persons with disabilities. Disabled persons deserve access (to the extent that it does not compromise your restoration and environmental goals), and the Americans with Disabilities Act mandates accessibility.

My concern is underscored by the fact that-within the past month, at the same time your agency is asking for comments on a new restoration project at the Marsh-somebody (with little or no public notice or opportunity for public comment) removed the only two parking spaces at the end of Venice Drive (i.e., Cove East trailhead) that were designated for disabled persons. The simple facts are as follows: 1) Persons with disabilities do use and enjoy that trail; and 2) the removal of the two parking spaces for disabled persons will make it difficult (or impossible) for many persons with a variety of disabilities to use that trail during the busy months when parking options along Venice Drive become extremely limited. I53-1

I request that you work to ensure that the disabled parking spaces at the Cove East trailhead are timely replaced, fully restored, and adequately designated. I further request that you plan your new restoration project (and all of its recreation elements) to ensure accessibility for persons with disabilities.

Thank you for considering my views.

Sincerely,

Alia Selke

Alia Selke

cc: Disability Rights California (Sacramento)
Disability Rights Advocates (Berkeley)

Letter
I53
Response

Alia Selke
April 7, 2013

I53-1 The commenter is concerned about accessibility of recreation opportunities for persons with disabilities, particularly regarding disabled parking spaces at the Cove East trailhead.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, Alternative 3 would provide a pedestrian trail to Cove East Beach that would be ADA-accessible, as would the fishing platform at the restored lagoon. Disabled parking spaces are currently available at the Tahoe Keys Marina.

Letter I54

From: DR. SJOLIN [sjolindds@comcast.net]
Sent: Thursday, March 14, 2013 11:49 AM
To: Carroll, Scott@Tahoe
Subject: UPPER TRUCKEE RIVER AND MARCH RESTORATION PROJECT

Hello Scott,

I am writing in reference to the five alternatives being considered. It is my understanding no one alternative will necessarily be adopted in its entirety.

While I agree the "floodplain" of the Truckee River should be modified to utilize the marsh to the fullest extent possible, I do not agree with proposed walkways, pathways, viewing platforms, etc. Those placed in the Taylor Creek area are incredible, BUT -- these changes to the "natural landscape' are not in residential areas.

Without changes to Trout Creek, which frequently reroutes itself, the proposed paved walkways will be underwater for a good portion of the year. The property owners that back to the meadow, specifically on the Al Tahoe side of the meadow, will most certainly have their privacy and tranquility irreparably transformed.

Increased traffic, parking issues, potential for increased vandalism and property crimes are not consistent with homeowners and home values in the effected residential areas adjacent to the Upper Truckee Marsh (UTM). It is implausible additional resources will not be necessary to maintain these proposed alternatives. I am a resident of the Al Tahoe neighborhood. I54-1

I believe we should "ALL" have access to all public areas in California ! I do not believe we should impose unnatural mitigation to these potentially effected residential areas by encouraging increased and potential overuse of the UTM.

The UTM should be left accessible to all that seek to utilize it's bounties, yet, it should not be a destination for those that are unaware of the UTM.

And NO, I am not a NIMBY (not in my backyard).

With all due respect, please do not over think these alternatives.
Often, LESS IS MORE !!!

Regards,

Jack Sjolin DDS
831 Paloma Ave
209-610-6822

Letter
I54
Response

Jack Sjolin
March 14, 2013

I54-1 The commenter's concern about new recreation infrastructure creating increased demand for parking, increased vandalism, and trespassing on private property in the vicinity of the Al Tahoe subdivision is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate infrastructure on the west side of the marsh and no additional recreation access on the marsh's east side. The Conservancy would continue to manage and reduce the impacts of recreational use and new trails on the east side while maintaining and expanding on-site signage.

Letter I55

We feel the primary guiding principles for this project should be to restore, maintain, and preserve this fragile wetlands habitat with as little disruption to the existing wetlands as possible. We cannot comment nor give suggestions regarding the restoration of the river, as we have no knowledge of that science. However, as frequent visitors to Cove East, we can comment on the apparent success that wel have observed to date. Now it is possible to walk the dirt trails and witness breeding, resident and migrating birds and several mammal species from a distance as they go about their business of survival. The native plants that were reintroduced seem to have flourished. We can watch Coyote families interacting, Beavers at work, Bald Eagles perched in the lodgepole pines, Peregrine Falcons bathing on the spit, White Pelicans stopping over on their migration to Pyramid Lake, various species of hawks hunting for voles and mice, freshly hatched Sora Rails rushing for cover in the cattails....and on and on. There can be a new discovery every day. Dragonflies, Butterflies, and Insects float over the marsh. Invertebrates in the mud lure Shorebirds and Snipe. Birdsong fills the air in the spring and fish travel up the river and creek in the fall.

We all know that the human impact has created extensive irreversible damage to this wetland habitat. If there was an abundance of wetlands in the Tahoe Basin, it might make sense to take a percentage of the area and put in boardwalks and signage as an educational effort to teach about the importance of conserving wetlands, but Tahoe doesn't 'have that luxury anymore. The remaining area is too small to welcome more human access and impact. Although there has been substantial progress in curbing the behavior of people who visit this area, there remains an attitude that this area is their "personal" dog park, beach, lake shore. Cove East is a beautiful place for locals and visitors to enjoy. The present paths on the west side out to the lake and back are adequate to give visitors access to the views and nature watching without stressing the wildlife and disturbing the marsh. I55-1

Increasing and facilitating access into and around the Upper Truckee Marsh may lead to increasing the stress on this environment and it's wild inhabitants. This is not an isolated river and marsh that might survive an occasional visit by someone such as a photographer moving quietly in a canoe; this marsh is located near a large housing project and a busy tourist town full of visitors that are eager to experience adventure in a natural and pleasing setting. Visitors on watercraft, paddle boards and kayaks, folks on bicycles, runners, large groups of bird watchers, fishermen, dog walkers, beach goers...etc, could end up "loving to death" this fragile place.

Therefore, we do not support adding boardwalks, creating circle trails, expanding bicycle trails, building bridges over the lagoon, or putting in a connection along the beach between the two sides. A connecting trail along the beach, as proposed in alternative #1 could spell the end of this habitat for wildlife. A circular walk at Cove East could draw many more people and put them right out at the mouth of the river, a very sensitive area for the wildlife. This is where the hawks and eagles hunt, where the ducks, geese, swans and shorebirds collect. Migrant birds feed in the willows at the edge of the lake. Owls sleep in the lodgepoles during the day and come out to hunt at night.

The mouth of the river and beach is where even the best intentioned dog walker can't resist letting their pet off leash to play in the lake. I have observed beach goers walk right through the endangered plant area and fishermen leave their trash and nylon line. *Do we need more people passing through here?* There are many other opportunities for recreation elsewhere in the Tahoe Basin. Can't we leave this one piece of fragile wetlands alone? I55-1 cont.

Placing a boardwalk along the east side of the marsh could also be problematic. Trout Creek passes very close to the edge of the marsh and we have observed and heard several breeding birds close by in this area, for example: Pied-billed Grebes, Sora Rails, Ducks, Marsh Wrens.

Another concern is a fear that if more trails are put in...then the California Tahoe Conservancy might cut down more trees that may seem to pose a hazard to the pedestrians, altering the landscape in a manner that would take years to restore. The trees that edge this marsh are very important to the wildlife. It's counterproductive to take trees down so people can walk more closely to the marsh to observe "nature!" I55-2

We're concerned that increasing human access to Cove East could result in the heavy use we witness at Pope Marsh, along the road that divides the marsh and the beach. The road into Pope Beach is easier to navigate than Cove East is now, with its flat macadam roadway. Bikers, families with carriages, runners and dog walkers enjoy this as a favorite walk. Unfortunately, a good percentage of the dog walkers along the Pope Beach roadway do not pick up after their animals and do not leash them. The marsh is full of breeding birds. The owners let their dogs run in and out of the marsh. The road is covered with dog feces. I fear that if the Conservancy makes Cove East more accessible and more inviting, we may end up with another Pope Beach situation. A Sand Hill Crane alighted at Pope Marsh on March 24' 2013. Someone's big dog could have harassed this rare visitor and sent it away. We want our marshes to be welcoming for returning creatures that may have frequented the marshes in the basin long before the Tahoe Keys were developed. I55-3

I am concerned about more Kayaks, paddle boards, and watercraft entering the river at Cove East. The SUP business has become a very popular tourist activity in Tahoe and the Upper Truckee Marsh is one of the first points of interest for people to explore after renting their SUPs. An increased presence of people moving through the marsh standing upright and talking loudly....certainly has the potential for increasing stress for the wildlife. I55-4

Therefore, I would not support Alternatives #1, 2, and 3. Possibly #4 might be acceptable.

First and foremost, the North Upper Truckee Marsh is a Wetland to be preserved in as natural a state as possible for wildlife. All other issues are secondary. We commend the California Tahoe Conservancy for the work that has been done so far and support the efforts directed at restoring the river's natural flow. I55-5

Sue and Phil Stevenson

2073 Kickapoo St.

South Lake Tahoe, CA 96150

Letter
I55
Response

Sue & Phil Stevenson
April 7, 2013

I55-1 The commenter's opposition to additional access to the marsh, including Cove East Beach, and recreation infrastructure and concern about off-leash dogs is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate infrastructure on the west side of the marsh and no additional recreation access on the marsh's east side. The Preferred Alternative has been selected to meet the project objectives, including the objective to provide public access, access to vistas, and environmental education at the Lower West Side and Cove East Beach consistent with all other objectives. Under the Preferred Alternative, the existing trail providing public access to Cove East Beach would be partially rerouted along the restored wetlands, lagoons, and dunes while still maintaining access to the shore of Lake Tahoe. The rerouted trail would be consistent with Americans with Disabilities Act (ADA) guidelines. No additional trails or bicycle paths would be constructed on the east side of the Upper Truckee River.

See Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for a discussion of trash pickup, police protection, and other public services in the study area.

I55-2 The commenter's concern about the removal of trees for new trails and the affects wildlife is noted.

The impact associated with the removal of trees is discussed in Section 3.4, "Biological Resources," of the 2013 Draft EIR/EIS/EIS. Environmental Commitment 5, "Prepare and Implement Effective Construction Site Management Plans to Minimize Risks of Water Quality Degradation and Impacts to Vegetation," includes tree protection measures. In addition, see response to Comment I38-1 for further discussion of impacts on wildlife.

I55-3 The commenter's concern about the effects of off-leash dogs on the marsh and their effects on wildlife is noted.

See Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for a discussion of animal control services.

I55-4 The commenter's opposition to Alternatives 1, 2, and 3 and support of Alternative 4 are noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I55-5 The commenter supports preservation of the Upper Truckee Marsh for wildlife and supports the Conservancy's current efforts to restore the river's natural flow.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

Letter I56

RECEIVED
CA TAHOE CONSERVANCY

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

Subject: Comments on Upper Truckee River and Marsh Restoration Project (Project)

Note: Withhold my home address from public disclosure to the extent allowed by law

I am a resident and/or property owner in the Tahoe Island Park 4 subdivision. I believe the Project planning and its environmental impact report (Report) do not adequately address the following possible real impacts to me and my neighborhood:

1. Construction noise in Tahoe Island Park 4 subdivision: this is a quiet residential neighborhood. Use of California Avenue as a haul route, and CTC neighborhood lots for the California Avenue Staging site, will generate abnormal and unacceptable local noise preventing my reasonable use and enjoyment of my home and property. The Report implies this noise could occur at any time, or continuously, from 8 AM to 6:30 PM, daily, for four years. Nevertheless, the Report assesses the short-term noise impact, for all project alternatives, as Less Than Significant, No Mitigation Needed. This finding defies common sense for significant residential impact, and the locations cited in Appendix J of the Report that were analyzed for noise impact do not include any streets in the vicinity of California Avenue or its proposed staging site. I strongly disagree with this finding for this neighborhood and consider the noise impact analysis for this neighborhood inadequate since it does not include any nearby locations.
2. Traffic in Tahoe Island Park 4 subdivision: California Avenue, designated as the only haul route in this subdivision, is one of its narrowest streets. California Avenue is heavily used by residents, people walking their children and pets, pedestrians, and bicyclists. The street is too narrow for large vehicles to pass each other or turn around, or even for normal vehicles to navigate without evasive maneuvers. When cars are parked along it, it is effectively single lane. Yet the Report assesses the short-term potential for conflict between construction traffic, local traffic, pedestrians, and bicycles as Less Than Significant, No Mitigation Needed. For this neighborhood, I strongly disagree with this finding and consider the analysis it is based on to be inadequate. The finding defies common sense, does not seem to address the residential nature of the neighborhood, and the traffic impact assessment discussions in the Report cite only the Al Tahoe, Hidden Woods, and Tahoe Keys Neighborhoods, but not this neighborhood. I56-1
3. Disruption of established neighborhood values in Tahoe Island Park 4 subdivision: the proposed California Ave Staging site makes use of small undeveloped residential lots acquired by the CTC because of, and to prevent damage to, their environmental sensitivity. The neighborhood had a reasonable expectation that they would never be used by the CTC as a construction site for staging heavy equipment and fill materials. The aesthetic fundamental nature of the neighborhood would be devastated for four years by this use. This impact is not recognized or assessed in the Report. I strongly object to use of the subject CTC lots by the Project for this or other construction purposes.

4. Neighborhood safety in Tahoe Island Park 4 subdivision: construction activity on the subject CTC lots in conjunction with neighborhood children playing near their homes creates a safety hazard that does not appear to be identified or analyzed in the Report. I strongly object to unnecessary multi-year heavy construction in the neighborhood and feel that the Report has not adequately assessed the impact to the safety of neighborhood children. *Will a four year old neighborhood child not be able to play catch outside his or her home in the summer until he or she is 8?*
5. Increased Flood Risk in Tahoe Island Park 4 subdivision: The models cited in the Report predict no increased residential flood risk as a result of the Project. If the models prove incorrect, no assessment has been included of how expensive the damages to property owners would be or whether the lead Agencies would be responsible, and have the funds, to financially compensate the property owners
6. Neighborhood notification in Tahoe Island Park 4 subdivision: even though my neighborhood is potentially highly impacted by Project construction, I was not directly notified of the Report or public comment period. Even if agency outreach and notification satisfied the letter of the law, it certainly did not satisfy the spirit of notifying impacted parties so they could comment. Few of my neighbors are aware of the possible impacts even now, and there has been little public response to the few recent outreach meetings. I feel the notification process has been inadequate and ineffective, at least near the potential California Ave Staging site.

I56-1 cont.

I believe these and other potential impacts to my neighborhood are excessive, unnecessary, and unacceptable. Therefore, I respectfully request that the preferred alternative and final plans, include the features below. If this isn't done, I respectfully request that additional impact analyses and public comment be undertaken to address the inadequacies cited above from these features.

1. No use of the CTC lots designated as California Ave Staging for any Project construction activities. It is not necessary for either environmental or practical reasons. The CTC has other alternatives that do not require disrupting this, or other, residential neighborhoods.
2. No use of California Ave as a haul route for Project construction activities.
3. No use of any streets or parcels in the Tahoe Island Park 4 subdivision as Project haul routes or staging sites.
4. Locating internal haul routes for river work on the east side of the river to the maximum extent possible to minimize impact to close-by residential neighborhoods which are primarily on the west side of the river.
5. Posting a bond or securing insurance to compensate property owners for damages and loss of property value, if the Project increases residential flood risk and the FEMA 100-year floodplain.

Respectfully submitted,

Name: Bart Sullivan Date: 4/7/13

Address: P.O. Box 9651
SO. LAKE TAHOE, CA 96158

2

Letter
I56
Response

Bart Sullivan
April 7, 2013

I56-1 The commenter has concerns about construction activities resulting in increased noise, traffic, disruption of established neighborhood values, neighborhood safety, and increased flood risk in the Tahoe Island Park 4 subdivision. The commenter states that individual residents in the Tahoe Island Park 4 subdivision were not directly notified of public outreach.

See response to Comment Letter I8 for a discussion regarding these concerns.

Letter I57

From: Jeannine Tinsley [jobjungle@msn.com]
Sent: Monday, April 22, 2013 6:08 PM
To: Carroll, Scott@Tahoe
Subject: Upper Truckee river and Marsh Restoration Project

Hello Mr. Carroll,

I live on the meadow at 886 Rubicon Trail, S. Lake Tahoe CA 96150. There are many issues which should be addressed before moving forward on the Upper Truckee River and Marsh Restoration Project.

1. People constantly park in front of the Access Gate at the end of Rubicon Trail and block possible Conservancy, and/or Emergency Police or Fire access should it be necessary.

2. People join at the end of the bike trail on Rubicon and in the Meadow to smoke and it is a high fire hazard to the conservancy and surrounding residential and business neighborhood.

3. Expanding public accessibility via bike and walking trails is the worst idea if indeed the goal is to keep Tahoe Blue, keep trash and pollution down (due to how many people use the trail to walk dogs, most of which let their dogs go to the bathroom without cleaning it up (even during the no walking times posted), and drop litter, cigarette butts and generally loiter. There has been a recent rash of criminal activity near or on the bike trails or meadow....expanding the bike trail is just going to add an element of ruin to the area. I57-1

4. The accumulated pine needles and pine cones are a high fire hazard missed by last years' clean up crew right outside our property and out neighbors and I emailed for them to finish, but on one ever came back to clean up the debris.... I am afraid a smoker will accidentally light a fire and the whole neighborhood will be at high risk!

5. People sneak and camp out there in the conservancy area sometimes....again a fire, and pollution hazard.

6. There are no Poop Scoop bags to encourage dog walkers to dispose of their dog feces properly in the trash can only located at the opening to the meadow.

My advice is to clean up the general area, and post signs like at the end of San Francisco Street on the other side of the meadow which say " No Smoking, no overnight camping" and " Emergency Parking only, do not block gate!"

The extension of the bike path is an invitation to further pollute the Creeks and increase the crime and public accessibility which is a mistake for Keep Tahoe Blue....

Thank you for taking all of this feedback into consideration.

Feel free to contact me with any questions.

Best Regards,
Jeannine Tinsley
886 Rubicon Trail
S. Lake Tahoe, CA 96150
(530) 600-0712
jobjungle@msn.com

Letter
I57
Response

Jeannine Tinsley
April 22, 2013

I57-1 The commenter's concern about dogs, littering, and public safety in the study area is noted.

See Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for a discussion of trash pickup and police protection services in the study area.

Letter I58

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

4/7/2013

Re: Upper Truckee River and Marsh Restoration Project

To whom it may concern:

As a resident of 2260 Dover Drive in Tahoe Keys for over 35 years, I take great interest in the proposals offered up as the 'Upper Truckee River and Marsh Restoration Project'. You see, for all of the time that my family has lived at this address, we have dealt with the TKPOA Maintenance Yard, which is accessed through Dover Drive. For all of these years, the operators of this yard have ignored Codes and Regulations of Lahontan, TRPA, and the El Dorado County Air Quality Management District on a daily basis. For all of these years, the TKPOA has been allowed to contribute gross amounts of silt directly into the 10-year flood plain that surrounds the Maintenance Yard by all of these local agencies.
Only last year was one agency (the El Dorado AQMD) worthy of their public responsibility: They finally notified the TKPOA that they were in violation of AQMD requirements as to dust production in an environmentally sensitive area. Since that time the TKPOA has taken minimal efforts to comply with AQMD requirements (they place gravel on the road every few months). Every year the TKPOA hires a new 'crew' and every year the problem of speeding and silt production on this access road becomes very, very real to us. I58-1
However, this winter highlighted the real issues with this maintenance yard, and its location right in the middle of the proposed 'Restoration Project'. The TKPOA repeatedly plowed snow from the gravel surface of the access road, an activity that is specifically forbidden by TKPOA regulations, we have video evidence of this repeated violation. In order to plow this road, it MUST be fully paved and equipped with approved drainage and BMP equipment. Ms. Jessica Schwing of the TRPA was the source of this information. This activity has happened every year that we have lived at 2260 Dover Dr., and the total amount of silt pumped into the Truckee River marsh location from the maintenance yard property is vast. The TKPOA also maintains huge piles of milfoil weed (pulled from TKPOA lagoons) in this yard, which they constantly process to somewhere else in fully loaded, double-length truck and trailer rigs that regularly traverse the access road.

My question to all involved in this project is this: While you are 'restoring' this area to whatever state you intend, do you also intend to continue to allow this gross pollution to exist in the middle of your 'pristine restoration'?

It's far beyond the time when the agencies endowed by the public trust with authority over this area should turn away from the hypocrisy of the past 40 years. It is time for you to stop giving 'lip service' to plastic, fake environmentalism, recognize the elephant in the room, and shut down the TKPOA Maintenance Yard for good. If you go forward with a plan that allows this yard to continue operation in the middle of your 'Restoration Project', you are worse than simply ineffectual: you are betraying the public trust you have been entrusted with. I58-1 cont.

Sincerely-

David Triano
2260 Dover Dr.
South Lake Tahoe, CA
96150
530-318-5872

Letter
I58
Response

David Triano
April 7, 2013

I58-1 The commenter's support for removal of the TKPOA maintenance yard as part of the restoration is noted.

See response to Comment I18-2 for further discussion of the TKPOA Corporation Yard and road restoration.

Letter I59

From: Bonnie Turnbull [brownbul@gmail.com]
Sent: Sunday, March 10, 2013 8:28 AM
To: Carroll, Scott@Tahoe
Cc: Bonnie Turnbull
Subject: Comments on Upper Truckee Marsh

Scott, thank you for listening to my thoughts at the open house. You probably got lots of suggestions that day so I wanted to remind you of some points I had made.

I cannot comment knowledgeably on the science behind any of the restoration work, so perhaps these comments should be instead forwarded to someone in charge of the public engagement with this effort.

I59-1

1. Consider opening up the marsh to unleashed dog access when the meadow is under snow cover. The geese and coyotes seem to fend for themselves quite well.

2. Keep peripheral connections in mind. This marsh is part of a complex network of access for the adjacent neighborhoods.

Bike advocates, including myself, would love a crossing to connect the neighborhood to the Keys. A poor compromise would be to better connect Oakland Ave to the bike path behind Meeks. Perhaps a route could be constructed that would keep bikers off the sensitive shore areas but still connect to Tahoe Island.

Our family, for example, also travels the pathways to get to the college/ball fields. It's relatively safe for my daughter--better than dealing with traffic crossings at times. We go from Bellevue along meadow pathways south to connect to the bike path behind Meeks and then duck under hwy 50. This route could be encouraged for dog walkers since the property on the south side of the highway has no leash concerns that I am aware of. I would love for this section to have a boardwalk, too. Admittedly, people take to the road on this section because it is so often wet. But it is one of the reason dog walkers always go toward the shore.

I59-2

(And on that note, so many people walk dogs behind the post office, that it might be good to post information/poop bags to keep this section of Trout Creek as clean as possible. I know this is not your land, and that the college is strapped for funds.)

People will continue to walk to the shore. In alt 2,3, and 4, you don't tell them what to do next to minimize impact.

3. I would be happy to be designated somehow a "steward of the meadow". In fact, I have spent hours with my daughter picking up litter, cutting down invasive woolly mullein seed heads, and encouraging people to respect the signage (a thankless job). Perhaps you can develop an official program and get some neighborhood buy-in.

I59-3

4. More engaging educational signs might encourage people to better love and care for the cress patches. Right now, they simply look prohibitive and people sure hate more regulation.

I59-4

Thanks for getting this information to the right place.

Sincerely,
Bonnie Turnbull

Letter
I59
Response

Bonnie Turnbull
March 10, 2013

I59-1 The commenter's suggestion for opening the marsh to dogs during winter is noted.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I59-2 The commenter's opposition to Alternatives 2, 3, and 4 is noted. The commenter's support for bicycle connectivity between the neighborhood and the Tahoe Keys is noted.

The Preferred Alternative does not include construction of new bicycle trails. As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation components of the Preferred Alternative.

I59-3 The commenter's support of an official stewardship program to pick up litter and encourage respect for signage is noted.

See Section 3.1.4, "Management," in Chapter 3, "Master Responses," of this Final EIR/EIS/EIS for a discussion of services in the study area.

I59-4 The commenter's support for educational signs is noted.

The Preferred Alternative would include development of an interpretive program and installation of additional signage that would include educational information. The Preferred Alternative also would include an interpretive kiosk that would provide information to support visitor education and interpretation of the ecological values of the Upper Truckee Marsh.

Letter I60

RECEIVED
CA TAHOE CONSERVANCY

California Tahoe Conservancy
ATTN: Scott Carroll
1061 Third Street
South Lake Tahoe, CA 96150

Subject: Comments on Upper Truckee River and Marsh Restoration Project (Project)

Note: Withhold my home address from public disclosure to the extent allowed by law

I am a resident and/or property owner in the Tahoe Island Park 4 subdivision. I believe the Project planning and its environmental impact report (Report) do not adequately address the following possible real impacts to me and my neighborhood:

1. Construction noise in Tahoe Island Park 4 subdivision: this is a quiet residential neighborhood. Use of California Avenue as a haul route, and CTC neighborhood lots for the California Avenue Staging site, will generate abnormal and unacceptable local noise preventing my reasonable use and enjoyment of my home and property. The Report implies this noise could occur at any time, or continuously, from 8 AM to 6:30 PM, daily, for four years. Nevertheless, the Report assesses the short-term noise impact, for all project alternatives, as Less Than Significant, No Mitigation Needed. This finding defies common sense for significant residential impact, and the locations cited in Appendix J of the Report that were analyzed for noise impact do not include any streets in the vicinity of California Avenue or its proposed staging site. I strongly disagree with this finding for this neighborhood and consider the noise impact analysis for this neighborhood inadequate since it does not include any nearby locations.
2. Traffic in Tahoe Island Park 4 subdivision: California Avenue, designated as the only haul route in this subdivision, is one of its narrowest streets. California Avenue is heavily used by residents, people walking their children and pets, pedestrians, and bicyclists. The street is too narrow for large vehicles to pass each other or turn around, or even for normal vehicles to navigate without evasive maneuvers. When cars are parked along it, it is effectively single lane. Yet the Report assesses the short-term potential for conflict between construction traffic, local traffic, pedestrians, and bicycles as Less Than Significant, No Mitigation Needed. For this neighborhood, I strongly disagree with this finding and consider the analysis it is based on to be inadequate. The finding defies common sense, does not seem to address the residential nature of the neighborhood, and the traffic impact assessment discussions in the Report cite only the Al Tahoe, Hidden Woods, and Tahoe Keys Neighborhoods, but not this neighborhood. I60-1
3. Disruption of established neighborhood values in Tahoe Island Park 4 subdivision: the proposed California Ave Staging site makes use of small undeveloped residential lots acquired by the CTC because of, and to prevent damage to, their environmental sensitivity. The neighborhood had a reasonable expectation that they would never be used by the CTC as a construction site for staging heavy equipment and fill materials. The aesthetic fundamental nature of the neighborhood would be devastated for four years by this use. This impact is not recognized or assessed in the Report. I strongly object to use of the subject CTC lots by the Project for this or other construction purposes.

4. Neighborhood safety in Tahoe Island Park 4 subdivision: construction activity on the subject CTC lots in conjunction with neighborhood children playing near their homes creates a safety hazard that does not appear to be identified or analyzed in the Report. I strongly object to unnecessary multi-year heavy construction in the neighborhood and feel that the Report has not adequately assessed the impact to the safety of neighborhood children. *Will a four year old neighborhood child not be able to play catch outside his or her home in the summer until he or she is 8?*
5. Increased Flood Risk in Tahoe Island Park 4 subdivision: The models cited in the Report predict no increased residential flood risk as a result of the Project. If the models prove incorrect, no assessment has been included of how expensive the damages to property owners would be or whether the lead Agencies would be responsible, and have the funds, to financially compensate the property owners
6. Neighborhood notification in Tahoe Island Park 4 subdivision: even though my neighborhood is potentially highly impacted by Project construction, I was not directly notified of the Report or public comment period. Even if agency outreach and notification satisfied the letter of the law, it certainly did not satisfy the spirit of notifying impacted parties so they could comment. Few of my neighbors are aware of the possible impacts even now, and there has been little public response to the few recent outreach meetings. I feel the notification process has been inadequate and ineffective, at least near the potential California Ave Staging site.

I60-1 cont.

I believe these and other potential impacts to my neighborhood are excessive, unnecessary, and unacceptable. Therefore, I respectfully request that the preferred alternative and final plans, include the features below. If this isn't done, I respectfully request that additional impact analyses and public comment be undertaken to address the inadequacies cited above from these features.

1. No use of the CTC lots designated as California Ave Staging for any Project construction activities. It is not necessary for either environmental or practical reasons. The CTC has other alternatives that do not require disrupting this, or other, residential neighborhoods.
2. No use of California Ave as a haul route for Project construction activities.
3. No use of any streets or parcels in the Tahoe Island Park 4 subdivision as Project haul routes or staging sites.
4. Locating internal haul routes for river work on the east side of the river to the maximum extent possible to minimize impact to close-by residential neighborhoods which are primarily on the west side of the river.
5. Posting a bond or securing insurance to compensate property owners for damages and loss of property value, if the Project increases residential flood risk and the FEMA 100-year floodplain.

Respectfully submitted,

Name: Edward Verhagen

EDWARD VERHAGEN

Date: 4/17/2013

Address:

Shelly Verhagen

2

Letter
I60
Response

Eduard Verhagen
April 7, 2013

I60-1 The commenter has concerns about construction activities resulting in increased noise, traffic, disruption of established neighborhood values, neighborhood safety, and increased flood risk in the Tahoe Island Park 4 subdivision. The commenter states that individual residents in the Tahoe Island Park 4 subdivision were not directly notified of public outreach.

See response to Comment Letter I8 for a discussion regarding these concerns.

Letter I61

From: Kathy Kohberger [kohkoh@sbcglobal.net]
Sent: Wednesday, April 03, 2013 9:47 AM
To: Carroll, Scott@Tahoe
Cc: Charles Ward
Subject: Fw: Truckee Marsh Restoration Alternative #1

Mr. Carroll:

We have carefully reviewed the various options for the marsh restoration and find the best to be Alternative #1.

We have a home and two units at 693 Modesto Avenue [Al Tahoe neighborhood] that overlook the marsh. During the last few years we have spent many hours in the accessible portion of marsh and have extensive knowledge of the current conditions.

We feel Alternative #1 best addresses the most issues and is the most comprehensive solution for recreation and conservation. The other alternatives are not even close. I61-1

Our second choice would be alternative #5, which is to maintain the status quo. This alternative would only be satisfactory until Alternative #1 could be implemented.

If you have questions, please advise. Thanks for your assistance.

Sincerely,

Charles Ward and Kathy Kohberger

Copy Delivered by Hand or U.S. Mail

Letter
I61
Response

Charles Ward & Kathy Kohberger
April 3, 2013

I61-1 The commenters' support for Alternative 1 as their first preference and for Alternative 5 as their second choice (until Alternative 1 could be implemented) is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

Letter I62

From: Hydroman [hydroman455@aol.com]
Sent: Thursday, April 18, 2013 9:38 PM
To: Stewart, Penny@Tahoe
Cc: Russell Wigart; Carroll, Scott@Tahoe
Subject: Re: 2 things

I survived and was not drowned in a scour hole.. Actually it went pretty well. Having Jeremy involved really helps bring a technical perspective from the academic end. I hope he can stay involved in these discussions and would love his input and contributions on future efforts.
Thanks so much for your efforts and the discussions..
That said, below are some comments I drafted a couple weeks ago. They are very general...

I sent a message early last week that bounced back to me regarding comments on the Upper Truckee Marsh Project that is currently under development by the CTC. In speaking with Penny Stewart late last week she stated that public comments will still be considered, therefore I am submitting some very brief comments with regard to this project.

The Upper Truckee Marsh restoration project is perhaps the most important project in the Tahoe Basin. Connecting the largest tributary and River system with its floodplain at the Delta will help to mitigate some of the disturbance created as part of the Tahoe Keys development. I admire the CTC for taking on this project. Previous research by Stubblefield et al has shown that this reach is responsible for much of the lack of function and degradation in the watershed. The cannelization of the Upper Truckee River next to the Keys has not only increased sediment transport through this reach but exacerbated this through disconnection of the Marsh and Delta.

That said, I have the following comments and opinions… I62-1

1.) The CTC has my support of Alternative 3. This in my opinion appears to be the best suited means to restore and reconnect the river with its floodplain. This alternative allows the river to be introduced into a large section of the Upper Truckee Marsh with the least amount of disturbance. Although inevitably this project will require some level of disturbance, it is my opinion (Based on work by Kondolf (Berkeley), Doyle (Duke) and Wilcox (Johns Hopkins)) among many others, that the least amount of disturbance the better. Floodplain grading should be minimized as much as possible along with the use of heavy equipment. The Marsh adjacent to and North of Highland Woods has had little disturbance and historic meanders still exist.
Introducing the UTR into this portion of the Marsh will allow the river to adjust naturally with little intervention. There is no restoration feasible that can mitigate the development of the Tahoe Keys however Alternative 3 appears to be the best low impact option. Trout Creek adjacent to the Upper Truckee River has gone through some dynamic changes in the last several years. The exemplary water quality of Trout Creek and the long term inundation of water in the meadow system are a testament of the benefits that these meadow systems, especially in the backwater system of a Delta such as the Truckee Marsh, treat water.

2.) I am not in support of any recreation advances within this Marsh. Funneling people into sensitive areas (especially restored ones) does not seem to be in the best interest of conservation or Water Quality. My opinion is that public access should be limited in this area and not encouraged. An elevated Boardwalk will create restrictions at the Mouth of this dynamic channel. Any form of recreation or conveyance of the public in this meadow system does not have my support. This meadow will be backwatered during times of high lake level or peak discharge, so increasing public recreation in this area not only increases the potential for disturbance but can also take away the dynamic capacity of the river. Sensitive species such as the Tahoe Yellow Cress are present so any increase of recreation will just put more pressure and stress on an already stressed and sensitive system. There are plenty of trail networks that can be upgraded on the Venice Drive, Tahoe Keys and Springwood area that can convey the public around this sensitive and historically disturbed meadow system. Increasing public recreation into this meadow system is in my opinion a "BAD IDEA". It has enough pressure already from Kayakers, Fisherman and off trail Nature Explorers. I am in support of the wildlife viewing areas as described in the Alternative 3 plan view. Incorporating these into the surrounding trail network give the public a place to view the beauty and surrounding nature without having to be directly recreating on it. I62-2

3. Large investments were made in Lower Westside and near Cove East perhaps having an overflow channel in this section could create more available floodplain treatment and sediment storage capacity. Since majority of the flow will be introduced into the Marsh to the East (alt 3), there will be less flow and therefore less velocity capable of creating channel forming bank erosion through this canaled section. I62-3
Perhaps we can talk more about this at another time...

4.) What is the point of Bank protection in the Marsh? Is there erosion prevalent? I62-4
Thanks

Russ Wigart

Sent from my iPhone

On Apr 18, 2013, at 5:45 PM, "Stewart, Penny@Tahoe"
<Penny.Stewart@tahoe.ca.gov> wrote:
Russ -

Letter
I62
Response

Russ Wigart
April 18, 2013

I62-1 The commenter's support for Alternative 3 is noted.

Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting restoration components of the Preferred Alternative. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I62-2 The commenter's opposition to additional recreation advances or any form of recreation or conveyance within the meadow is noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation components of the Preferred Alternative. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I62-3 The commenter suggests an overflow channel to potentially create more available floodplain treatment and sediment storage capacity in the Lower West Side and near Cove East Beach.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

I62-4 The commenter inquires about the purpose of bank protection in the marsh and asks whether bank erosion is prevalent. However, the comment is not specific about the location(s) or alternatives about which the commenter is concerned.

A discussion of bank erosion under existing conditions is provided in Section 3.8, "Geomorphology and Water Quality," of the Draft EIR/EIS/EIS. There is accelerated bank erosion along much of the Project reach of the Upper Truckee River. Under the Preferred Alternative, restoration measures on State land would reconnect the active low-flow channel with the marsh floodplain surface via a geomorphically sized pilot channel. Abandoned channel sections that now experience bank erosion would be filled or partially filled and reshaped to be restored meadow areas functioning as vegetated swales. The project does not propose any bank protection measures along the existing channel or at the LWS downstream of the pilot channel because the low-flow river would be relocated to the middle of the marsh and be of appropriate dimensions and connected to the floodplain and have lower banks. Existing eroding banks along the river on private land between the pilot channel and U.S. 50 would benefit from the floodplain lowering, revegetation, and secondary channel reactivation. The only areas proposed to specifically have bank protection under the Preferred Alternative are in the lower reach of Trout Creek (to ensure that any additional flows through this segment of the creek would not result in bed and/or bank erosion) and at the actively eroding east (right) hillslope downstream of the U.S. 50 bridge. Bank stabilization and protection in this vicinity would address erosion of private lands and property loss, as well as reduce local sources of sediment directly to the river and the lake.

Letter I63

From: Brenda Wyneken [brndakn@hotmail.com]
Sent: Monday, April 08, 2013 8:39 AM
To: Carroll, Scott@Tahoe
Subject: Upper Truckee Marsh proposal

Dear Sir:

I am writing in response to the restoration project proposal for the Upper Truckee Marsh. As a long-time resident in the Al Tahoe are, I fully support the need to restore water quality and wildlife habitat in the Upper Truckee Marsh from past mismanagement such as clear-cutting, grazing, and the development of the Tahoe Keys. However, I have major concerns about the four alternatives being discussed, most notably the desire to increase public access on the east side of the marsh/meadow. Ever since a two-foot wide footbridge, believed to unsanctioned, was built across Trout Creek at the end of Oakland Avenue, our neighborhood has seen a sharp rise in litter, human defecation, vagrants, vandalism, and burglaries. The four alternatives, which propose new bike paths, trails, viewpoints, and kiosks, will only exacerbate these problems. Furthermore, with the restorations completed among the upper reaches of Trout Creek between Pioneer Trail and the community college, the eastern side of the Upper Truckee Marsh now remains wet and boggy well into the summer months; increasing public access here does not make sense under these circumstances because improving access points will only promote more damge to the wet ecosystem. Finally, it is my opinion that there exist enough viewpoints overlooking the meadow if one walks along El Dorado Avenue or down to the southern end of Bellevue Avenue. There are also a number of access points to Lake Tahoe via the Cove East trail, Regan Beach, and El Dorado Beach, now know as Lakeview Commons. I63-1

The Tahoe Conservancy has the duty to restore and protect the Upper Truckee Marsh and Lake Tahoe. Increasing public access to the marsh/meadow is in direct opposition to your stated goals for this project: ". . . to restore the river's natural cleansing function and subsequently increase habitat quality for plant, wildlife, and fish species." If you really want to restore the Upper Truckee Marsh to its original purpose as a natural filter for waters entering Lake Tahoe, do NOT approve the increased public access on the east side as proposed in the four alternatives.

Sincerely,

Brenda Wyneken
Al Tahoe resident

Letter
I63
Response

Brenda Wyneken
April 8, 2013

I63-1 The commenter states support for restoration of water quality and wildlife habitat in the marsh, but opposes any increase in recreational facilities or opportunities within the meadow.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative.

Letter I64

From: info@tahoe.ca.gov [mailto:info@tahoe.ca.gov]
Sent: Saturday, May 11, 2013 3:01 PM
To: ctran@sdbxstudio.com; TAHOE Info
Subject: CTC - Contact

Contact Form:

Name: Victoria Archibald
Email: vicandbales@yahoo.com
Phone: 530-544-1596

Comments
We were not advised of the closing date for voting as to the use of Upper Truckee Marsh Area, either by USPS or email. My husband and I would like to express our concern for the wildlife in this meadow and feel that a bike trail or excessive recreational use would upset the natural balance of the meadow. We would like to strongly express our desire for Alternative #2, as that seems to have the least human impact on the natural balance of this area. We strongly feel some areas should be left for Lake Tahoe's wildlife as there are plenty of areas for people. Further expanding human impact on this area would only do more harm than good for this meadow. I64-1

Sincerely
Donald Archibald Victoria Archibald
P.O. Box 14194
South Lake Tahoe, Ca.
96150

Letter
I64
Response

Donald & Victoria Archibald
May 11, 2013

I64-1 The commenters' concern about noticing and public outreach is noted. The commenters' support for Alternative 2 is also noted.

As discussed in Chapter 2, "Project Description," of this Final EIR/EIS/EIS, the Preferred Alternative is proposing moderate recreation on the west side of the marsh, similar to existing conditions, and no additional recreation access on the marsh's east side. Alternative 3 is the recommended restoration approach under the Preferred Alternative. See Section 2.1, "Selecting a Preferred Alternative," of the Final EIR/EIS/EIS for a description of the approach to selecting recreation and restoration components of the Preferred Alternative.

See responses to Comments AO2-4 and I8-6 for a discussion of the project's history, planning context, and public outreach.

SECTION C

Public Meetings

This page intentionally left blank.

Letter
PM1
Response

Advisory Planning Commission
March 13, 2013

PM1-1 This is the call to order and introductory information and general meeting information and overview information on the Upper Truckee River and Marsh Restoration Project.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

PM1-2 The commenter asks about SEZ credits in disturbed SEZ.

The project would create new SEZ and enhance existing SEZ. Credits are believed to be given on new and disturbed SEZ. The accreditation of SEZ is to be determined through TRPA once the project is complete.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

PM1-3 The commenter asks whether fish passage is a short-term or long-term problem.

Impacts associated with short- and long-term fish passage are discussed in Section 3.5, "Fisheries," of the 2013 Draft EIR/EIS/EIS under Impacts 3.5-3 and 3.5-4. 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. 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, Alternative 3 (and the Preferred Alternative) has the potential to disrupt fish migrations for a substantial number of migration seasons, and it would increase the risk from stranding for downstream-moving fish in the river.

PM1-4 The commenter asks whether a shallow introductory channel would assist in channel forming under Alternative 3.

The Preferred Alternative does include a pilot channel to help direct the river flows from the existing, deeply incised channel out onto the surrounding terrace surface and reconnect with the remnant channels and swales in the middle of the marsh.

PM1-5 The commenter asks how many seasons the project will take to complete.

The project would take approximately 4–5 years to complete, with heavy construction expected to occur over approximately 2 years.

PM1-6 The commenter asks whether fish will have to be rerouted twice.

The final phasing, sequencing, and duration of construction activities would be determined during final design and permitting, including considerations of the likely lake level and streamflow conditions that could occur during the eventual construction seasons. These variables would

control the number of times and/or locations requiring dewatering, flow bypassing, and fish rescue and relocation. It is possible that separate areas and timing for dewatering events would be planned, because there may be environmental benefits to the fish, water quality, and invasive-species control to have discrete efforts at the Sailing Lagoon, lower Trout Creek, the river mouth, and the pilot channel. These considerations would be included in the crafting the aquatic-species rescue and relocation plan as part of Environmental Commitment 7. The plan would be completed, reviewed, and approved by both the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service (for Lahontan cutthroat trout) before the start of construction.

PM1-7 The commenter asks about beavers during construction.

There may be situations during construction where removal of beaver dams is needed. Beavers would continue to use the study area after construction.

PM1-8 The commenter asks how the project addresses climate change and large storm events.

The project design approach considers the range of historic variability and trends, but the official design guidelines and performance criteria considered for design and impact thresholds are focused on current planning standards and regulatory requirements, which range up to the 1 percent annual chance (100-year) flood. Regionally downscaled simulations of future climate and hydrology under a range of climate change scenarios were considered during the development of alternative approaches and assessment of the hydrology, flooding, geomorphology, and water quality impacts of the proposed action alternatives and the no-action future condition (in Sections 3.8 and 3.9). Because the future conditions under various climate change scenarios have relatively high uncertainty, comparisons between alternatives and between the action alternatives and the no-action future are relative, rather than quantitative.

PM1-9 The commenter’s preference of Alternative 3 and opposition to Alternative 1 is noted.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

PM1-10 The commenter asks whether the inset floodplain alternative would be as effective as Alternative 3 at handling changes caused by climate change.

Alternative 3 was selected as the restoration basis of the Preferred Alternative partially because its reactivation of existing floodplain features, emphasis on use of natural geomorphic adjustments, reestablishment of a river-connected lagoon, and potential to raise groundwater levels and surface inundation across the meadow would all provide superior resilience to likely hydrologic and climatic changes forecast for the region. Alternative 4, which proposed an inset floodplain, would not be expected to have the same degree or type of advantages.

PM1-11 The commenter asks whether restoration projects are considering the Ark storm in the Lake Tahoe Basin.

The project design approach considers the range of historic variability and trends, but the official design guidelines and performance criteria considered for design and impact thresholds are focused on current planning standards and regulatory requirements, which does not include the very-low-probability, extreme events such as the “Ark storm.”

PM1-12 The comment is unclear; however, if interpreted correctly, it discusses accommodating recreation access and natural processes.

The Preferred Alternative provides for recreation access as required under the litigation settlement agreement and the intent of acquisition while still allowing natural deltaic processes to occur.

PM1-13 The commenter asks what type of fish would be affected by fish passage issues.

Section 3.5, “Fisheries,” of the 2013 Draft EIR/EIS.EIS includes a thorough discussion of the fish species that are or may be present in the study area and could be affected by fish passage issues. Impacts 3.5-3 and 3.5-4 for each of the alternatives include a description of the fish species that could be affected, depending on the season, flow conditions, and life-history phases of the various species.

PM1-14 The commenter suggests restoring the TKPOA yard.

The Preferred Alternative includes removal of the TKPOA yard and road, and restoration to meadow habitat, contingent on TKPOA consent. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

PM1-15 The comments are associated with other Advisory Planning Commission meeting topics.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

Letter
PM2
Response

TRPA Governing Board
March 27, 2013

PM2-1 This is the call to order and introductory information and general meeting information and overview information on the Upper Truckee River and Marsh Restoration Project.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

PM2-2 The commenter asks what percentage of sediment from all sources into Lake Tahoe is coming from the Upper Truckee River.

As discussed in Section 3.8 of the Draft EIR/EIS/EIS, the Upper Truckee River is the largest source of fine sediment to Lake Tahoe. Although its unit-area rate of sediment generation is moderate, the basin is large. The Upper Truckee River's portion of the total fine-sediment load to Lake Tahoe is calculated to be 19.4 percent; another 8.9 percent generated in Trout Creek is also routed to the lake through the study area.

PM2-3 The comment is unclear but seems to discuss financial feasibility.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

PM2-4 The commenter asks at what point in time the Lahontan RWQCB gets involved.

The Lahontan RWQCB has been involved throughout the planning process. See Comment Letters AO5 and AO6 for additional information. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

PM2-5 The commenter asks where construction funding may come from.

Construction funding has currently not been determined. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

PM2-6 The commenter asks for additional details on the four action alternatives; however, details requested are not provided.

Chapter 2, "Project Alternatives," of the 2013 Draft EIR/EIS/EIS provides details on all the action alternatives. Chapter 2, "Project Description," of this Final EIR/EIS/EIS provides details on the Preferred Alternative. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

PM2-7 The commenter asks which alternative is most expensive.

A cost analysis of the action alternatives was presented in Appendix E, "Alternatives Cost Estimate," of the 2013 Draft EIR/EIS/EIS. Alternative 4 is estimated to be the most costly. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

PM2-8 The commenter asks which alternative is preferred by the project proponents.

See Chapter 2, "Project Description," of this Final EIR/EIS/EIS for further discussion of the Preferred Alternative screening process. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

PM2-9 The comment is unclear but something about basic economics.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

PM2-10 The commenter's opinion of the meadows, flooding, runoff, and conifer encroachment is noted.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

PM2-11 The commenter asks whether funding will be available if Alternative 4 is selected as the Preferred Alternative or whether the Conservancy will redesign to be consistent with money available.

See Chapter 2, "Project Description," of this Final EIR/EIS/EIS for further discussion of the Preferred Alternative screening process. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

PM2-12 The commenter asks about multiple projects along the Upper Truckee River and concerns with lack of funding and different design processes.

Cumulative impacts associated with the project were discussed in Section 3.16, "Cumulative Impacts," of the 2013 Draft EIR/EIS/EIS. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

PM2-13 The comment is unclear but appears to be associated with "acreage treated."

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

PM2-14 The commenter discusses project-related workshops to be held by the Conservancy on May 2 and 3, 2013.

This comment does not raise issues regarding the adequacy, accuracy, or completeness of the Draft EIR/EIS/EIS.

This page intentionally left blank.

5 REVISIONS TO THE DRAFT EIR/EIS/EIS

This chapter includes revisions to the text to the 2013 draft environmental impact report/environmental impact statement/environmental impact statement (Draft EIR/EIS/EIS) since publication and public review. The revisions have been made for one or more of the following reasons: in response to a comment on the Draft EIR/EIS/EIS, for correction of an error, and/or in relation to a change initiated by California Tahoe Conservancy (Conservancy) staff as further clarification or explanation of the analysis. Chapter 2 of this document provides the project description, which includes presentation of the Preferrred Alternative which has been selected, , and developed in response to public and agency comment and feedback.

The changes are presented in the order in which the text appeared in the 2013 Draft EIR/EIS/EIS and are identified by page number(s). Revisions are shown as excerpts from the 2013 Draft EIR/EIS/EIS text, with strikethrough (~~strikethrough~~) text for deletions and underlined (<u>underlined</u>) text for additions.

5.1 GLOBAL REVISIONS

As requested by the California State Lands Commission, the text of the entire Draft EIR/EIS/EIS is revised as necessary to abbreviate the name of the commission as "CSLC."

5.2 REVISIONS TO CHAPTER 1, "INTRODUCTION AND STATEMENT OF PURPOSE AND NEED"

The list of regulatory actions/permits in Section 1.1.3, "Regulatory Requirements, Permits, And Approvals," on pages 1-4 and 1-5 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

FEDERAL ACTIONS/PERMITS

- <u>**Reclamation:** The Record of Decision (ROD) will state the federal action to be implemented and will discuss all factors leading to the decision as to potentially, approval of funding for construction.</u>
- <u>**State Historic Preservation Office:** Consultation for impacts on cultural resources pursuant to Section 106 of the National Historic Preservation Act (NHPA).</u>
- **U.S. Army Corps of Engineers:** Department of the Army permit under Section 404 of the Clean Water Act (CWA) for discharges of dredged or fill material into waters of the United States.
- **U.S. Environmental Protection Agency:** Review of the EIS, and filing and noticing; concurrence with the Section 401 CWA permit.
- **U.S. Fish and Wildlife Service:** Consultation under the federal Endangered Species Act and issuance of incidental-take authorization for the take of federally listed endangered and threatened species, if take of a species is anticipated.

STATE ACTIONS/PERMITS

- **California Department of Fish and Wildlife:** Potential consultation under the California Endangered Species Act and issuance of take authorization, streambed alteration agreement, and protection of raptors (California Fish and Game Code Sections 2081, 1602, and 3503.5, respectively).
- **California Department of Transportation:** Possible encroachment permits for work involving the U.S. Highway 50 right-of-way.

- **Lahontan Regional Water Quality Control Board (Region 6):** National Pollutant Discharge Elimination System construction stormwater permit (notice of intent to proceed under general construction permit) for disturbance of more than 1 acre, discharge permit for stormwater, general order for dewatering, and Section 401 CWA certification or waste discharge requirements.

REGIONAL ACTIONS/PERMITS

- **TRPA:** Construction permits, including the Environmental Improvement Program (EIP) Permit, Land Capability and Coverage Verifications, and Historic Determination.

LOCAL ACTIONS/PERMITS

- **El Dorado County Air Pollution Control District:** Oversees Rule 223 for fugitive dust to reduce the amount of particulate matter entrained in the ambient air by anthropogenic (human-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions.

- **City of South Lake Tahoe:** Regulates grading on both public and private property within the South Lake Tahoe city limits to safeguard life, limb, health, property, and public welfare and avoid pollution of watercourses caused by surface runoff, or by aerial deposition of pollutants generated from the permit area on or across the permit area.

5.3 REVISIONS TO SECTION 3.3, "CULTURAL RESOURCES"

The text of Section 3.3.1, "Affected Environment," on page 3.3-7 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows in response to comments by the Wahoe Tribe of Nevada and California:

Unlike Native Americans in many other regions of California, even into the 20th century, the Washoe were not completely displaced from their traditional lands. In 1917, the Washoe Tribe began reacquiring a small part of their traditional lands (Nevers 1976:90–91). The Washoe remain a tribe recognized by the U.S. government and have maintained an established land base. Its 1,600 tribal members are governed by a tribal council that ~~consists of members of the~~ is elected by tribal members who live in one of the four communities of Carson, Dresslerville, Woodfords, and Reno-Sparks ~~Indian colonies~~, as well as members from nonreservation areas. The contemporary Washoe have developed a comprehensive land use plan (Washoe Tribal Council 1994) that identifies the goals of reestablishing a presence in the Tahoe region and revitalizing Washoe heritage and cultural knowledge, including the harvest and care of traditional plant resources and the protection of traditional properties in the cultural landscape (Rucks 1996:3).

5.4 REVISIONS TO SECTION 3.4, "BIOLOGICAL RESOURCES: VEGETATION AND WILDLIFE"

In March 2010, the CDFW changed the name of the "California Native Plant Society [CNPS] List" or "CNPS Ranks" to "California Rare Plant Rank" (or CRPR). This change was made to reduce confusion over the fact that CNPS and CDFW jointly manage the Rare Plant Status Review groups (300+ botanical experts from government, academia, nongovernmental ogranizations, and the private sector) and that the rank assignments are the product of a collaborative effort and not solely a CNPS assignment. Therefore, any reference to the CNPS List or CNPS listing status in the 2013 Draft EIR/EIS/EIS should be considered one and the same with the more current terminology of California Rare Plant Rank or CRPR.

The rare plant identified in the 2013 Draft EIR/EIS/EIS as American mannagrass (*Glyceria grandis*), with a CNPS listing status (now called CRPR) of 2, was misidentified. This plant was recently confirmed as fowl mannagrass (*Glyceria elata*), a common species that has no listing status in the CRPR system. This corrected identification came about as a result of focused surveys for American mannagrass conducted by AECOM

botanists in support of the Upper Truckee Marsh Sewer Facilities Adaptive Management Plan project on August 5, 2014 (AECOM 2014). As part of this survey, AECOM botanists visited the presumed American mannagrass stands identified by the 2007 rare plant survey documented in the 2013 Draft EIR/EIS/EIS and determined that the species was instead fowl mannagrass. These two species are very similar in appearance and the distinguishing characteristic (number of anthers per floret) is not referenced in the 1993 Jepson Manual, which was used as the primary reference for species identification during the 2007 rare plant survey. American mannagrass florets contain three anthers, whereas fowl mannagrass florets contain two anthers. Reexamination of a voucher specimen collected from the 2007 rare plant survey using the more recent and updated Jepson Manual (Baldwin et al. 2012), which includes reference to this distinguishing characteristic, also confirmed the identity of the mannagrass species in the proposed project study area as fowl mannagrass.

Recent changes have occurred in the federal and state status of several wildlife species addressed in the 2013 Draft EIR/EIS/EIS. As a result, the status of four species was elevated under the federal Endangered Species Act or the California Endangered Species Act (CESA): Yosemite toad, mountain yellow-legged frog (now Sierra Nevada yellow-legged frog), Townsend's big-eared bat, and Pacific fisher. The status of five species was modified relative to California's species of special concern or U.S. Forest Service sensitive species lists: northern leopard frog, osprey, northern goshawk, peregrine falcon, and western red bat; peregrine falcon was also delisted under the CESA. In addition, three wildlife species no longer have any special status as defined in the 2013 Draft EIR/EIS/EIS: Cooper's hawk, sharp-shinned hawk, and hoary bat. Although these latter three species are hereby removed from specific mention in the 2013 Draft EIR/EIS/EIS (see specific text changes identified below), Cooper's and sharp-shinned hawks are raptors that are still protected under the California Fish and Game Code (Sections 3503–3503.5), and bats, as an environmental resource, are protected generally under the California Environmental Quality Act (CEQA). The potential impacts on these species in the context of CEQA remain evaluated and considered in the 2013 Draft EIR/EIS/EIS.

Additionally, as a result of the federal listing of mountain yellow-legged frog (now Sierra Nevada yellow-legged frog) as endangered, a focused survey for this species in potentially suitable habitat within the study area was conducted in 2015 (Ascent 2015). The survey results have been incorporated into the 2013 Draft EIR/EIS/EIS (see specific text changes identified below).

As a result of the corrected identification of American mannagrass to fowl mannagrass, the text of Section 3.4.1, "Affected Environment," on page 3.4-13 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

- The initial data review preliminarily identified 44 special-status plant, lichen, and fungi species that could occur in the region. Table 3.4-1 contains information on all special-status plant species previously recorded in the southern Tahoe Basin. Based on review of existing documentation and discussion with local botanists with extensive experience with the site, ~~24~~23 of these special-status plant species have the potential or are known to occur in the study area.

As a result of the corrected identification of American mannagrass to fowl mannagrass, the text of Table 3.4-1 in Section 3.4.1, "Affected Environment," on page 3.4-16 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

Table 3.4-1
Special-Status Plant Species Known From or With Potential to Occur in the Upper Truckee River and Wetlands Restoration Project Study Area

Scientific and Common Name	Listing Status[1]			Habitat and Flowering Period	Potential for Occurrence
	Federal	State	Local/CNPS		
Glyceria grandis American mannagrass			2	Bogs and fens, meadows and seeps, and streambanks and lake margins of marshes and swamps; 49 to 6,496 ft. Blooming period: June–August	~~**Known to occur**~~**Not present.** ~~Observed at Upper Truckee Marsh (EDAW and ENTRIX 2003) and during the 2007 rare plant survey~~Suitable habitat occurs in the study area; however, the species was not detected during the 2007 rare plant survey.

As a result of the corrected identification of American mannagrass to fowl mannagrass, the text of Section 3.4.1, "Affected Environment," on page 3.4-20 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

During the special-status plant survey of the study area, ~~one special-status plant species, American mannagrass (*Glyceria grandis*), a CNPS List 2 species, was encountered that had not been previously reported from the study area (Table 3.4-1). The~~ known populations of TYC at Cove East and Barton Beaches were visited ~~during this survey~~. The locations of these TYC populations ~~of special-status species~~ are shown in Exhibit 3.4-2 and are discussed in more detail below.

As a result of the corrected identification of American mannagrass to fowl mannagrass, the subsection "American Mannagrass," comprising three paragraphs in Section 3.4.1, "Affected Environment," on page 3.4-20 of the 2013 Draft EIR/EIS/EIS is now irrelevant and has been entirely removed as follows:

~~**American Mannagrass**~~

~~American mannagrass is a rhizomatous grass (i.e., a grass with some below-ground stems) that is on CNPS List 2 (plants that are rare, threatened, or endangered in California but more common elsewhere) (CNPS 2010). The species is much more common outside of California; it is found from Alaska to Newfoundland in the north (including all of the northwestern, midwestern, mid-Atlantic, and northeastern states), in the mountains of Arizona and New Mexico in the southwest, and north of North Carolina and Tennessee in the southeastern United States. In California it is known from Fresno, Humboldt, Mendocino, Mono, Placer, and Tuolumne Counties. There are no previously documented occurrences of American mannagrass in El Dorado County.~~

~~American mannagrass grows in riparian habitats, on streambanks, at lake margins, in meadows, and in bogs and fens. It grows to a height of three feet tall and has a 7- to 15-inch-long, egg-shaped inflorescence (i.e., arrangement of flowers) bearing small spikelets (i.e., small groups of inconspicuous flowers). The grass flowers between June and August. It is similar in overall appearance to fowl mannagrass (*Glyceria elata*), which is much more common throughout the Sierra Nevada. It can also be confused with pale fake mannagrass (*Torreyochloa pallida*). Photographs of American mannagrass can be found in Appendix G.~~

~~During AECOM's special-status plant survey of the study area (July 25–27, 2007), American mannagrass was found in one location growing on a low mud bench within one of the active channels of Trout Creek just above the surface water. Associated species on the mud bench were pale fake mannagrass (*Torreyochloa pallida*), beaked sedge, Baltic rush, fringed willow herb (*Epilobium ciliatum*), and wild mint (*Mentha arvense*). Approximately 35 flowering stems were observed in a ten-square-foot area. Nearby mannagrass species, thought to be fowl mannagrass, had a very different appearance characterized by much greener lemmas and inflorescence, a slightly smaller inflorescence, and smaller, more rounded glumes.~~

As a result of the corrected identification of American mannagrass to fowl mannagrass, the American mannagrass location identified in Exhibit 3.4-2, "Location of Special-Status Plant Species in the Study Area," of the 2013 Draft EIR/EIS/EIS has been removed.

Because of recent changes in the federal and state status of several wildlife species addressed in the 2013 Draft EIR/EIS/EIS, the text of Section 3.4.1, "Affected Environment," on page 3.4-22 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

The initial data review preliminarily identified ~~27~~24 special-status wildlife species that could occur in or near the study area. ~~Twelve~~Fifteen of the species evaluated are not expected or have a low potential to occur in the study area, and ~~15~~nine have a moderate to high likelihood to occur in the study area and vicinity. This determination was based primarily on three factors: the types, extent, and quality of habitats in the study area; the proximity of the study area to known extant occurrences of the species; and the regional distribution and abundance of the species.

Because of recent changes in the federal and state status of several wildlife species addressed in the 2013 Draft EIR/EIS/EIS and the completion of focused surveys for the Sierra Nevada yellow-legged frog, as described above, the text of Table 3.4-2 in Section 3.4.1, "Affected Environment," on pages 3.4-24 through 3.4-31 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

Table 3.4-2
Special-Status Wildlife Species Evaluated for the Upper Truckee River and Marsh Project

Common Name and *Scientific Name*	Regulatory Status			Habitat Associations[1]	Potential for Occurrence[2]
	Federal	State	TRPA		
Amphibians					
Yosemite toad *Bufo canarus*	~~FC~~FT, FSS	SC		Endemic California toad found in wet meadows between 4,000–12,000 feet in the Sierra Nevada from Alpine County south to Fresno County.	**Not expected to occur**. The study area is outside the known range of this species.
~~Mountain~~Sierra Nevada yellow-legged frog *Rana ~~muscosa~~sierrae*	~~FC~~FE, FSS	ST, SC	P	Occurs in upper elevation lakes, ponds, bogs, and slow-moving alpine streams. Most Sierra Nevada populations are found between 6,000 and 12,000 feet elevation. Almost always found within three ft. of water, and associated with montane riparian habitats in lodgepole pine, ponderosa pine, Jeffrey pine, sugar pine, white fir, whitebark pine, and wet meadow vegetation types. Alpine lakes inhabited by mountain yellow-legged frogs generally have grassy or muddy margin habitat, although below treeline sandy and rocky shores may be preferred. Suitable stream habitat can be highly variable, from high gradient streams with plunge pools and waterfalls, to low gradient sections through alpine meadows, but low gradient streams are preferred. Small streams are generally unoccupied and have no potential breeding locations due to the lack of depth for overwintering and refuge (i.e., depths of several feet or more).	**Low potential to occur.** ~~Potentially suitable habitat is present in the study area~~ The species was not detected during a focused survey (including dipnetting) of potentially suitable habitat within the study area on September 29 and 30 and October 6 and 7, 2015 (Ascent 2015). This survey determined that habitat in the study area is not considered suitable for breeding and has very low potential to support nonbreeding (e.g., overwintering) individuals based on shallow water conditions, high vegetation density within and surrounding aquatic features in some locations, and the abundance of predators (including bullfrogs) throughout the survey area. Additionally~~However~~, the distance to known populations~~, presence of predators (e.g., bullfrogs),~~ and high level of disturbance in the study area cause the potential of occurrence to be low.
Northern leopard frog *Rana pipiens*	~~FSS~~	SC		Usually occurs in permanent water with abundant aquatic vegetation. Associated with wet meadows, marshes, slow-moving streams, bogs, ponds, potholes, and reservoirs.	**Not expected to occur.** Potentially suitable habitat is present in the study area. However, there have been no documented occurrences in the region.

Common Name and *Scientific Name*	Regulatory Status			Habitat Associations[1]	Potential for Occurrence[2]
	Federal	State	TRPA		
Birds					
Osprey *Pandion haliaetus*		~~SC~~	SI	Associated strictly with large fish-bearing waters. Nest usually within 0.25 mile of fish-producing water, but may nest up to 1.5 mile from water. In the Tahoe Basin, osprey nests are distributed primarily along the Lake Tahoe shoreline at the northern portion of the east shore and southern portion of the west shore. Other osprey nest sites in the Basin occur along the shorelines of smaller lakes (e.g., Fallen Leaf Lake), and in forest uplands up to 1.5 miles from lakes.	**Observed in study area (Foraging)**. Osprey have been observed in the study area. They are not known to nest in the study area, however good foraging habitat and perch sites are present in the area.
Northern goshawk *Accipiter gentilis*	FSS	SC	SI	In the Sierra Nevada, generally requires mature conifer forests with large trees, snags, downed logs, dense canopy cover, and open understories for nesting; aspen stands are also used for nesting. Foraging habitat includes forests with dense to moderately open overstories, and open understories interspersed with meadows, brush patches, riparian areas, or other natural or artificial openings. Goshawks reuse old nest structures and maintain alternate nest sites.	**Observed in study area (foraging).** Potential foraging habitat is present in the study area. However the lack of suitable nesting habitat and high disturbance levels in the surrounding area (e.g., residential and commercial development) cause the study area to be rarely used and northern goshawk to have a low potential to occur in a given year. A northern goshawk was observed in the study area previously (1994–1996). However, the detection was made in September when individuals tend to be moving from summer areas (Global Environmental 1997). It could have been a young bird produced elsewhere in the Basin or a migrating bird. No northern goshawks have been documented in the study area in recent years (1997–2007).
~~Cooper's hawk~~ ~~*Accipiter cooperii*~~		~~SC~~		~~Nests in oak woodlands, other mixed evergreen forest, or coniferous forest. Forages in a variety of habitats from open areas to dense forests.~~	~~**Observed in study area.** Potential nesting and foraging habitat exists within upland areas in the study area. The species has been documented foraging in the study area as recently as 2000 but has not been observed nesting (TRPA 2002). The level of disturbance in the study area reduces the potential for this species to use the area for nesting to a low level.~~

Common Name and *Scientific Name*	Regulatory Status			Habitat Associations[1]	Potential for Occurrence[2]
	Federal	State	TRPA		
~~Sharp-shinned hawk~~ ~~*Accipiter striatus*~~		~~SC~~		~~Nests in coniferous or mixed forests, usually selecting a conifer for the nest tree. Forages in a wide variety of coniferous, mixed, or deciduous woodlands.~~	~~**Observed in study area (Foraging).** Potential nesting and foraging habitat exists within the upland areas in the study area. The species has been observed foraging in the study area as recently as 2000 but has not been observed nesting (TRPA 2002). The level of disturbance in the study area reduces the potential for this species to use the study area for nesting to a low level.~~
Peregrine falcon *Falco peregrines*	~~FSS~~	~~SE,~~ FP	SI	Nests and roosts on protected ledges of high cliffs, usually adjacent to water bodies and wetlands that support abundant avian prey.	**Not expected to occur**. Suitable habitat not present in the study area.
Mammals					
Pale Townsend's big-eared bat *Corynorhinus townsendii pallescens*	FSS	SC, C(T)	SI	Ranges throughout California mostly in mesic habitats. Limited by available roost sites, such as caves, tunnels, mines, and buildings.	**Not expected to occur.** Suitable habitat not present in the study area. No occurrences reported within the Lake Tahoe Basin (Schlesinger and Romsos 2000).
Western red bat *Lasiurus blossevillii*	~~FSS~~	SC		Day roosts are commonly in edge habitats adjacent to streams or open fields, in orchards, and sometimes in urban areas. There may be an association with intact riparian habitat (particularly willows, cottonwoods, and sycamores).	**High potential to occur.** Suitable habitat is present in the study area and the species has been documented within 4 miles of the study area as recently as 2004 (Borgmann and Morrison).
~~Hoary bat~~ ~~*Lasiurus cinereus*~~		~~SC~~		~~Diverse forest habitats with a mixture of forest and small open areas that provide edges. Solitary and primarily roost in foliage of both coniferous and deciduous trees.~~	~~**Observed in study area.** Suitable habitat is present and the species has been documented on the study area (Borgmann and Morrison).~~
~~American~~Pacific marten *Martes ~~Americana~~caurina*	FSS		P	Dense canopy conifer forest with large snags and downed logs. Prefers old growth stands with multiple age classes in vicinity.	**Not expected to occur**. Suitable habitat not present in the study area.
~~Pacific~~ fisher—West Coast DPS ~~*Martes*~~*Pekania pennanti* ~~*pacifica*~~	~~FC~~P(T), FSS	SC, C(T)	P	Inhabits stands of pine, Douglas fir, and true fir, in northwestern California and Cascade-Sierra ranges. Fishers are considered extirpated throughout much of the Central and Northern Sierra Nevada (Zielinski et al. 1995).	**Not expected to occur**. No suitable habitat present. Species is considered extirpated from the Lake Tahoe Basin.

[1] **Regulatory Status Definitions**

Federal–U.S. Fish and Wildlife Service (USFWS):

FT = Threatened

FE = Endangered

P(T)~~FC~~ = ~~Candidate~~Proposed for listing under the federal Endangered Species Act as threatened

FSS = USDA Region 5 Sensitive Species (FSM 2672)

DPS = Distinct Population Segment

TRPA
SI = Special interest/threshold species
P = Proposed by TRPA to be added as a special interest/threshold species (TRPA 2007)

State–California Department of Fish and Wildlife (CDFW):
ST = Threatened
SE = Endangered
FP = Fully Protected
SC = Species of Special Concern
C(T) = Candidate for listing under the California Endangered Species Act as threatened

Because of recent changes in the federal and state status of several wildlife species addressed in the 2013 Draft EIR/EIS/EIS, the text of Section 3.4.1, "Affected Environment," on page 3.4-33 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

Northern Goshawk~~, Cooper's Hawk, and Sharp-Shinned Hawk~~

The northern goshawk (*Accipiter gentilis*)~~, Cooper's hawk (*A. cooperii*), and sharp-shinned hawk (*A. striatus*) are~~ is a forest raptor species that ~~have~~has been detected in the study area. ~~Each of these~~This species is designated as a species of special concern by CDFW, ~~. The northern goshawk~~ is ~~also~~ considered sensitive by USFS Region 5, and is considered a special-interest species by TRPA.

Northern goshawks generally require mature conifer forests with large trees, snags, downed logs, dense canopy cover, and open understories for nesting. Foraging habitat for this species includes forests with dense to moderately open overstories, and open understories interspersed with meadows, brush patches, riparian areas, or other natural or artificial openings. Forest habitat in the study area lacks the characteristics of suitable nesting habitat. A northern goshawk was previously observed in the study area. However, the detection was made in September, when individuals tend to move from summer areas (Conservancy 1997). Therefore, this bird may have been a dispersing juvenile or migrant. Although the goshawk has been observed in the study area, the lack of suitable nesting habitat in the study area and the high level of disturbance in the upland area limit the potential for the northern goshawk to nest there.

~~Cooper's hawks and sharp-shinned hawks nest and forage in a variety of coniferous and mixed forest habitat types. Cooper's hawks will also forage in more open areas. Suitable foraging habitat exists in the study area in upland areas, as well as in willow scrub–wet meadow. However, the small patches of forested habitat in the study area may not be adequate for nesting. In addition, the level of disturbance, especially in and around the upland area, limits the potential for these two species to use the site for nesting. The Cooper's hawk and sharp-shinned hawk have been detected in the study area as recently as 2000 (TRPA 2002a).~~

Because of recent changes in the federal and state status of several wildlife species addressed in the 2013 Draft EIR/EIS/EIS, the text of Section 3.4.1, "Affected Environment," on page 3.4-36 of the 2013 Draft EIR/EIS/EIS has been entirely removed, as follows:

~~**Hoary Bat**~~

~~The hoary bat is designated as a species of concern by CDFG. It is associated with a diverse array of forest habitats that also contain open areas, which can provide edge habitat. Hoary bats are solitary and tend to roost in the foliage of both coniferous and deciduous trees. Suitable roosting habitat exists in the study area along the montane meadow/upland edge, and high-quality foraging habitat is present throughout the study area. Hoary bats~~

~~have been documented in various locations within the Tahoe Basin, including the study area, as recently as 2004 (Borgmann and Morrison 2004).~~

The Sierra Nevada snowshoe hare was identified as a species with low potential to occur in Table 3.4-2 on page 3.4-30 of the 2013 Draft EIR/EIS/EIS. Therefore, the subsection "Sierra Nevada Snowshoe Hare," comprising one paragraph in Section 3.4.1, "Affected Environment," on page 3.4-38 of the 2013 Draft EIR/EIS/EIS, is not relevant to the discussion of species with moderate to high potential to occur in the study area and has been entirely removed, as follows:

~~**Sierra Nevada Snowshoe Hare**~~

~~The Sierra Nevada snowshoe hare (*Lepus americanus tahoensis*) is listed as a species of concern by CDFG. In the Sierra Nevada, this species in found only in boreal zones. Suitable habitat includes riparian communities with thickets of willows and alders, and conifer forests with abundant cover composed of shrubs or small trees. In the Tahoe Basin, snowshoe hares can be found in dense brush near the edges of meadows or riparian communities. Montane meadow habitat and the willow scrub–wet meadow habitat in the study area provide suitable habitat for this species. However, the distance of the study area from other suitable habitat and the level of disturbance in the study area may limit the potential of occurrence for this species.~~

As a result of an error in reference, the text of Section 3.4.2, "Environmental Consequences," on page 3.4-44 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

Section 3.4.2, "Environmental Setting," discusses all special-status plant and wildlife species evaluated in this analysis, and Tables ~~3.4-3~~3.4-1 and ~~3.4-4~~3.4-2 summarize the potential for each of these species to occur in the study area. With regard to sensitive species (significance criteria CEQA 1 and TRPA 5), those plant and wildlife species not expected or with a low probability to occur (because of a lack of suitable habitat, recent focused surveys that did not detect the species, or lack of other occurrence records) are not addressed further in this analysis. Implementation of this project is not expected to affect those species.

As a result of the corrected identification of American mannagrass to fowl mannagrass, the text of Section 3.4.2, "Environmental Consequences," on page 3.4-46 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

IMPACT
3.4-3
(Alt. 1)

Damage to or Mortality of Special-Status Plants Resulting from Construction Activities. (CEQA 1, 5; TRPA 5)
Under Alternative 1, ~~construction activities would not occur in occupied American mannagrass habitat. However,~~ construction of the bridge and boardwalk would occur in and close to Tahoe yellow cress habitat that could be occupied. Thus, construction of these facilities could damage or kill Tahoe yellow cress plants. This impact would be ***potentially significant.***

~~Two~~One special-status plant species ~~were~~was documented in the study area by the protocol-level plant survey: ~~American mannagrass and~~ TYC. ~~Alternative 1 would not involve construction activities in the area along Trout Creek occupied by American mannagrass. Thus, American mannagrass would not be affected by Alternative 1. However, a~~Under Alternative 1, a bridge and boardwalk would be constructed along the study area's Lake Tahoe shoreline under this alternative, and construction would also occur along the shoreline where the mouth of the Upper Truckee River would be modified. Footings for the bridge would be placed in beach and dune habitat where TYC is known to occur, and portions of the boardwalk would be located near beach and dune habitat where TYC is known to occur or could potentially be present. Similarly, river mouth modifications also would require construction activities and associated disturbance of beach and dune habitat. Therefore, construction of this bridge

and boardwalk, and river mouth modification, could damage or kill TYC plants. This impact would be **potentially significant**.

As a result of the corrected identification of American mannagrass to fowl mannagrass, the text of Section 3.4.2, "Environmental Consequences," on page 3.4-48 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

IMPACT
3.4-4
(Alt. 1)

Altered Extent of Special-Status Plant Habitat. (CEQA 1, TRPA 5) ~~Under Alternative 1, lagoon restoration could increase the extent of habitat that may be physically suitable for American mannagrass. Also, the increased extent and inundation of willow scrub-wet meadow under this alternative could increase the extent of habitat suitable for American mannagrass. However, both of these effects are uncertain and may not alter the extent of suitable habitat.~~ Under Alternative 1, beach and dune restoration could increase the extent of habitat physically suitable for Tahoe yellow cress. The boardwalk would be located near the back beach-marsh transition, but as described in Chapter 2, in the final design it would be sited in the marsh outside of Tahoe yellow cress habitat. Potential changes in sediment supply would not be sufficient to substantially reduce areas physically suitable for Tahoe yellow cress. In summary, the effect on the extent of habitat ~~for American mannagrass would be no effect to beneficial, and~~ for Tahoe yellow cress~~, the effect~~ would be less than significant. Therefore, this impact would be ***less than significant****.*

~~There are two~~One special-status plant species was documented in the study area: ~~American mannagrass and~~ TYC. The effect of implementing Alternative 1 could be ~~an increase in the extent of habitat that may be physically suitable for American mannagrass, but could be~~ a reduction in the extent of habitat that may be physically suitable for TYC. ~~It would provide additional habitat potentially suitable for American mannagrass by restoring the lagoon behind East Barton Beach (Table 3.4-4). Also, the extent of habitat suitable for American mannagrass could be increased by the additional acreage of willow scrub-wet meadow and more frequent overbanking of river flow into the marsh that would result from the river restoration included in Alternative 1. However, the specific microhabitat requirements of American mannagrass (e.g., mud benches along Trout Creek) are not known and thus river restoration may not increase the extent of this species.~~

As a result of the corrected identification of American mannagrass to fowl mannagrass, the text of Section 3.4.2, "Environmental Consequences," on page 3.4-49 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

The effect of Alternative 1 on the function and extent of habitat for ~~American mannagrass would be no effect to beneficial and on the function and extent of habitat for~~ TYC would be less than significant. Thus, this impact would be **less than significant**.

IMPACT
3.4-5
(Alt. 1)

Damage to or Mortality of Special-Status Plants Resulting from Recreational Activities. (CEQA 1, 5; TRPA 5) Under Alternative 1, damage to or mortality of special-status plants resulting from recreational activities would increase. ~~Under existing conditions, habitat occupied by American mannagrass is in a location that is not substantially disturbed by recreational activities, and implementing Alternative 1 would maintain this condition.~~ Under Alternative 1, the existing Tahoe yellow cress management plan (including the Barton Beach exclosure and adaptive management) would continue to be implemented. However, Alternative 1 would construct a boardwalk in close proximity to habitat occupied by Tahoe yellow cress and increase recreational use of potential and occupied habitat, and thus, would likely increase trampling of Tahoe yellow cress plants. Therefore, this impact would be ***significant****.*

Implementing Alternative 1 could change recreational activity in habitat suitable for ~~the two special-status plant species documented in the study area: American mannagrass and~~ TYC.

~~American mannagrass grows along Trout Creek in an area that is not disturbed by recreational activities under existing conditions and that is not likely to be disturbed in the future. Under Alternative 1, this area would be included in the core habitat in which recreational use would be reduced; therefore, there would be no substantial effect on American mannagrass.~~

Because of recent changes in the federal and state status of several wildlife species addressed in the 2013 Draft EIR/EIS/EIS, the text of Section 3.4.2, "Environmental Consequences," on page 3.4-51 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

IMPACT
3.4-8
(Alt. 1)

Disruption of Wildlife Habitat Use and Loss of Wildlife Resulting from Construction Activities. (CEQA 1; TRPA 9, 10, 12) Under Alternative 1, 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 elements and recreation infrastructure of Alternative 1 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 substantially affect nesting or other activities by 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. A number of common wildlife species also would likely have their use of the study area disrupted. This impact would be ***significant****.*

Under Alternative 1, construction activities could cause short-term disruption of wildlife use of portions of the study area, cause the loss of wildlife, or both. Construction activities would affect both common and special-status wildlife species by the same mechanisms: (1) human disturbance (i.e., the sounds and motions of construction workers and machinery) that disrupts foraging, nesting attempts, or other wildlife use of the study area and concurrently causes physiological stress, energetic costs, and increased risk of predation and (2) damage and removal of vegetation by clearing and grubbing, stockpiling of materials and soil, off-road operation of vehicles and other machinery, and earthwork that destroys nests or roost sites or harms or kills wildlife.

~~Fifteen~~Nine special-status wildlife taxa/guilds either have been documented in the study area or have a moderate to high likelihood of being present (Table 3.4-2). Some of these species are wide-ranging raptors that may forage or perch in the study area but that are unlikely to nest in the study area (including osprey, bald eagle, and northern goshawk); these species would not be substantially affected by construction activities, and construction activities might even benefit some foraging activities. Wintering bald eagles that perch in the study area would not be affected because their use of the study area would not be during the construction season. Construction activities could disturb the foraging activities of raptors, particularly where these activities would occur near the Upper Truckee River. However, because existing recreation use is already a source of disturbance, additional construction-related disturbance might not substantially affect foraging patterns. Furthermore, abundant foraging habitat is available in other areas nearby. Construction activities associated with Alternative 1 also would not cause injury or mortality to individuals. Therefore, construction activities would not be sufficient to affect the population size or viability of these species.

However, the nesting or roosting of ~~six~~ five special-status taxa/guilds in the study area could be adversely affected by the human disturbance or by the damage and removal of vegetation associated with construction:

Because of recent changes in the federal and state status of several wildlife species addressed in the 2013 Draft EIR/EIS/EIS, the text of Section 3.4.2, "Environmental Consequences," on page 3.4-52 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

- **Western red bat~~ and hoary bat~~.** ~~For both of these bat species, s~~Suitable roosting habitat exists in trees along forest edges bordering open habitats and in trees in riparian corridors of the study area, and high-quality foraging habitat is present throughout the study area. Western red bats have been detected at Tallac Marsh, less than four miles west of the study area (Borgmann and Morrison 2004). ~~Hoary bats have been documented in the study area as recently as 2004 (Borgmann and Morrison 2004).~~

Construction of Alternative 1 would involve disturbance and removal of vegetation (including willow thickets and trees) from willow scrub-wet meadow, Jeffrey pine forest, and lodgepole pine forest that provides suitable nesting habitat for yellow warbler, potentially suitable nesting habitat for willow flycatcher and long-eared owl, and suitable roosting habitat for western red bat~~ and hoary bat~~. Construction would also disturb and remove dense herbaceous vegetation near the open water of lagoons and the Upper Truckee River that provides nesting habitat for waterfowl. Furthermore, construction activities would generate human disturbance (e.g., noise) near these nesting and roosting habitats.

Removing or disturbing occupied nesting habitat would result in a substantial effect on the yellow warbler, willow flycatcher, long-eared owl, or waterfowl if individuals were killed, otherwise harmed, deterred from occupying breeding and nesting locations, or caused to abandoned a nest (potentially resulting in mortality of eggs and chicks). Similarly, roost removal or disturbance causing roost abandonment would have a substantial effect on ~~either bat species~~western red bat, particularly if individuals were killed or otherwise harmed. In addition, use of the study area by a number of common wildlife species would likely be disrupted. Therefore, the effect of construction activities on wildlife use of the study area would be **significant**.

As a result of the corrected identification of American mannagrass to fowl mannagrass, the text of Section 3.4.2, "Environmental Consequences," on page 3.4-56 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

IMPACT
3.4-3
(Alt. 2)

Damage to or Mortality of Special-Status Plants Resulting from Construction Activities. (CEQA 1, 5; TRPA 5) Under Alternative 2, ~~construction activities related to recreation infrastructure would not occur in occupied American mannagrass habitat. However,~~ 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. Thus, these construction activities could damage or kill Tahoe yellow cress plants. This impact would be potentially significant.

As a result of the corrected identification of American mannagrass to fowl mannagrass, the text of Section 3.4.2, "Environmental Consequences," on page 3.4-57 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

IMPACT
3.4-4
(Alt. 2)

Altered Extent of Special-Status Plant Habitat. (NEPA) Under Alternative 2, ~~lagoon restoration would increase the extent of potential habitat for American mannagrass. Also, the restoration and increased inundation of willow scrub-wet meadow under this alternative could increase the extent of habitat suitable for American mannagrass. However, both of these effects are uncertain and may not alter the extent of suitable habitat. Under Alternative 2, beach~~ and dune restoration could and new river mouth construction likely would increase the extent of habitat suitable for Tahoe yellow cress, and potential changes in sediment supply would not be sufficient to substantially reduce Tahoe yellow cress

habitat. ~~In summary, the effect on the extent of habitat for American mannagrass would be no effect to beneficial and for Tahoe yellow cress would be beneficial.~~ Therefore, this impact would be ***beneficial****.*

~~With regard to American mannagrass, this~~This impact is similar to Impact 3.4-4 (Alt. 1), except that under Alternative 2, ~~the increase in the acreage of willow scrub-wet meadow would be slightly greater than under Alternative 1 (8.7 versus 8.2 acres) (Table 3.4-4), and increased inundation of willow scrub-wet meadow could also increase the extent of habitat. With regard to TYC,~~ beach and dune restoration could and new river mouth construction likely would increase the extent of habitat suitable for TYC, and potential changes in sediment supply would not be sufficient to substantially reduce TYC habitat. This impact would be **beneficial**.

IMPACT
3.4-5
(Alt. 2)

Damage to or Mortality of Special-Status Plants Resulting from Recreational Activities. (CEQA 1, 5; TRPA 5) Under Alternative 2, damage to or mortality of special-status plants resulting from recreational activities would not be substantially altered. ~~Under existing conditions, habitat occupied by American mannagrass plants is in a location that is not substantially disturbed by recreational activities, and implementing Alternative 2 would maintain this condition.~~ Under Alternative 2, the existing Tahoe yellow cress management plan (including the Barton Beach exclosure and adaptive management) would continue to be implemented and protect habitat occupied by Tahoe yellow cress at Barton Beach. Also, implementing Alternative 2 would not substantially alter recreational use of Barton Beach or of habitat occupied by Tahoe yellow cress at Cove East Beach. Therefore, this impact would be ***less than significant****.*

Alternative 2 would not include the bridge and boardwalk components of Alternative 1 or other components that would increase recreational use of habitat occupied by TYC. Alternative 2 proposes the minimum level of recreation infrastructure with proposed infrastructure being located outside of areas that support TYC ~~and American mannagrass~~. ~~Under existing conditions, habitat occupied by American mannagrass plants is not substantially disturbed by recreational activities, and implementing Alternative 2 would maintain this condition.~~ Under Alternative 2, the existing TYC management plan (including the Barton Beach exclosure and adaptive management) would continue to be implemented and protect habitat occupied by TYC at Barton Beach. Therefore, this impact would be **less than significant**.

Because of recent changes in the federal and state status of several wildlife species addressed in the 2013 Draft EIR/EIS/EIS, the text of Section 3.4.2, "Environmental Consequences," on page 3.4-58 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

IMPACT
3.4-8
(Alt. 2)

Disruption of Wildlife Habitat Use and Loss of Wildlife Resulting from Construction Activities. (CEQA 1; TRPA 9, 10, 12) Under Alternative 2, 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 Alternative 2 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 ***significant****.*

As a result of the corrected identification of American mannagrass to fowl mannagrass, the text of Section 3.4.2, "Environmental Consequences," on page 3.4-61 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

IMPACT
3.4-3
(Alt. 3)

Damage to or Mortality of Special-Status Plants Resulting from Construction Activities. (CEQA 1, 5; TRPA 5) Under Alternative 3, ~~construction activities related to recreation infrastructure would not occur in occupied American mannagrass habitat. However,~~ 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. Thus, these construction activities could damage or kill Tahoe yellow cress plants. This impact would be ***potentially significant****.*

~~Two~~One special-status plant species ~~were~~was documented in the study area by the protocol-level plant survey: ~~American mannagrass and~~ TYC. This impact is similar to Impact 3.4-3 (Alt. 1), but the potential for construction activities to affect special-status plants is less under this alternative than under Alternative 1 and similar to Alternative 2. Construction under Alternative 3 would be limited to construction associated with the river mouth of the Upper Truckee River that would occur in or close to TYC habitat; it would not include construction of a boardwalk, bridge, and bike trail in the areas where TYC may occur. Similar to Alternative 1, this impact would be **potentially significant**.

IMPACT
3.4-4
(Alt. 3)

Altered Extent of Special-Status Plant Habitat. (CEQA 1, 5; TRPA 5) Under Alternative 3, the extent of habitat for special-status plants would remain largely unaltered. Lagoon and beach and dune restoration would not be components of Alternative 3. ~~The restoration and increased inundation of willow scrub-wet meadow could increase the extent of habitat suitable for American mannagrass. However, both of these effects are uncertain and may not alter the extent of suitable habitat.~~ Potential changes in sediment supply would not be sufficient to substantially reduce Tahoe yellow cress habitat. ~~In summary, the effect on the extent of habitat for American mannagrass would be no effect to beneficial and for Tahoe yellow cress would be less than significant.~~ Therefore, this impact would be ***less than significant****.*

Under Alternative 3, the extent of habitat for special-status plants (i.e., ~~American mannagrass and~~ TYC) would remain largely unaltered. ~~Restoration of lagoon habitat potentially suitable for American mannagrass would not be a component of Alternative 3. The restoration and increased inundation of willow scrub-wet meadow could increase the extent of habitat suitable for American mannagrass; however, because the microhabitat requirements of American mannagrass (e.g., mud benches along Trout Creek) are uncertain, habitat suitable for American mannagrass may not increase.~~ Restoration of beach and dune habitat potentially suitable for TYC would not be a component of Alternative 3. Also, potential changes in sediment supply would not be sufficient to substantially alter TYC habitat. Therefore, the impact on the extent of habitat for ~~American mannagrass and~~ TYC would be **less than significant**.

As a result of the corrected identification of American mannagrass to fowl mannagrass, the text of Section 3.4.2, "Environmental Consequences," on page 3.4-62 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

IMPACT
3.4-5
(Alt. 3)

Damage to or Mortality of Special-Status Plants Resulting from Recreational Activities. (CEQA 1, 5; TRPA 5) Under Alternative 3, damage to or mortality of special-status plants resulting from recreational activities would not be substantially altered. ~~Under existing conditions, habitat occupied by American mannagrass plants is in a location that is not substantially disturbed by recreational activities, and implementing Alternative 3 would maintain this condition.~~ Under Alternative 3, the existing Tahoe yellow cress management plan (including the Barton Beach exclosure and adaptive

management) would continue to be implemented and protect Tahoe yellow cress. Also, implementing Alternative 3 would not substantially alter recreational use of Barton Beach or habitat occupied by Tahoe yellow cress at Cove East Beach. Therefore, this impact would be less than significant.

Because of recent changes in the federal and state status of several wildlife species addressed in the DEIR, the text of Section 3.4.2, "Environmental Consequences," on page 3.4-63 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

IMPACT
3.4-8
(Alt. 3)

Disruption of Wildlife Habitat Use and Loss of Wildlife Resulting from Construction Activities. (CEQA 1; TRPA 9, 10, 12) Under Alternative 3, 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 Alternative 3 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 significant.

As a result of the corrected identification of American mannagrass to fowl mannagrass, the text of Section 3.4.2, "Environmental Consequences," on page 3.4-65 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

IMPACT
3.4-3
(Alt. 4)

Damage to or Mortality of Special-Status Plants Resulting from Construction Activities. (CEQA 1, 5; TRPA 5) Under Alternative 4, construction activities would not occur ~~in or near the habitat occupied by American mannagrass or~~ in or near habitat occupied by or potentially suitable for Tahoe yellow cress. Therefore, this impact would be less than significant.

As a result of the corrected identification of American mannagrass to fowl mannagrass, the text of Section 3.4.2, "Environmental Consequences," on page 3.4-66 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

IMPACT
3.4-4
(Alt. 4)

Altered Extent of Special-Status Plant Habitat. (CEQA 1, 5; TRPA 5) Under Alternative 4, the extent of habitat for special-status plants would remain largely unaltered. Lagoon and beach and dune restoration would not be components of Alternative 4. ~~The restoration and increased inundation of willow scrub-wet meadow under this alternative could increase the extent of habitat suitable for American mannagrass. However, both of these effects are uncertain and may not alter the extent of suitable habitat.~~ Potential changes in sediment supply would not be sufficient to substantially reduce Tahoe yellow cress habitat. ~~In summary, the effect on the extent of habitat for American mannagrass would be no effect to beneficial and for Tahoe yellow cress would be less than significant.~~ Therefore, this impact would be less than significant.

IMPACT
3.4-5
(Alt. 4)

Damage to or Mortality of Special-Status Plants Resulting from Recreational Activities. (CEQA 1, 5; TRPA 5) Under Alternative 4, damage to or mortality of special-status plants resulting from recreational activities would not be substantially altered. ~~Under existing conditions, habitat occupied by American mannagrass is in a location that is not substantially disturbed by recreational activities, and implementing Alternative 4 would maintain this condition.~~ Under Alternative 4, the existing Tahoe yellow cress management plan (including the Barton Beach exclosure and adaptive management) would continue to be implemented. Also, implementing Alternative 4 would not substantially alter recreational use of Barton Beach or of habitat occupied by Tahoe yellow cress at Cove East Beach. Therefore, this impact would be less than significant.

Because of recent changes in the federal and state status of several wildlife species addressed in the 2013 Draft EIR/EIS/EIS, the text of Section 3.4.2, "Environmental Consequences," on page 3.4-67 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

IMPACT
3.4-8
(Alt. 4)

Disruption of Wildlife Habitat Use and Loss of Wildlife Resulting from Construction Activities. (CEQA 1; TRPA 9, 10, 12) Under Alternative 4, 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 Alternative 4 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 significant.

As a result of the corrected identification of American mannagrass to Fowl mannagrass, the text of Section 3.4.2, "Environmental Consequences," on page 3.4-69 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

IMPACT 3.4-5
(Alt. 5)

Damage to or Mortality of Special-Status Plants Resulting from Recreational Activities. (CEQA 1, 5; TRPA 5) Under Alternative 5, recreational activities would remain comparable to existing conditions. Under existing conditions, ~~habitat occupied by American mannagrass is in a location that is not substantially disturbed by recreational activities, However,~~ visitors cause damage to and mortality of some Tahoe yellow cress. This existing adverse condition would continue. Thus, no impact *would occur.*

Under Alternative 5, recreational activities would remain comparable to existing conditions. Under existing conditions, ~~habitat occupied by American mannagrass is in a location that is not substantially disturbed by recreational activities, However,~~ visitors cause damage to and mortality of some TYC. This existing adverse condition would continue. Thus, **no impact** would occur.

5.5 REVISIONS TO SECTION 3.8, "HYDROLOGY AND FLOODING"

The text of Section 3.8.1, "Affected Environment," on pages 3.8-28 through 3.8-30 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

FEMA FLOODPLAIN

The regulatory floodplain identified by FEMA is land temporarily inundated by water overflowing from an adjacent or nearby river or stream during the identified "base flood," in this case the 100-year flood (1.0 percent annual chance flood).

The regulatory floodplain consists of the floodway and margins of the floodplain, which are called the flood fringe. The floodway is where the water is likely to be deepest and fastest, and is considered the zone of highest flood hazard. As specifically defined by FEMA (44 Code of Federal Regulations [CFR] 59.1[d]), a floodway is the channel of a river or other watercourse, and the adjacent land areas, that must be reserved to convey and discharge floodwaters. This area within the floodplain should be kept free of all obstructions to allow floodwaters to flow freely downstream. Therefore, development in or modification of a floodway is usually prohibited. The flood fringe is a zone of floodwater storage where water moves slowly or is ponded during flooding.

Development within the flood fringe is permitted by FEMA as long as the resulting water-surface profile of the 100-year flood is not increased by more than one foot at any location.

Floodplain Boundaries and Water Surface Elevations

The boundaries of the 100-year floodplain and floodway, and estimated water-surface elevations ~~and floodway boundaries~~ in the study area (Exhibits 3.8-14a and 3.8-14b) ~~are~~ from FEMA's ~~2008~~ Flood Insurance Rate Maps effective April 3, 2012, ~~(FEMA 2008a, 2008b, 2008c). This regulatory floodplain is~~ are used by ~~FEMA and~~ CSLT ~~in implementing~~ to implement floodplain management. In 2008 FEMA compiled previous existing data and converted the data to digital format. ~~development regulations. The mapping reflects revisions to the 1978 FIRM following~~ Various land use changes in and around the study area, including improvements to the U.S. 50 bridges at the Upper Truckee River and Trout Creek crossings, ~~additional~~ urban development, record peak flood events (1997), and restoration of the LWS ~~Restoration Area. Additionally, a Letter of Map Revision (LOMR) was prepared in 2009 on the basis of updated topographic information for the Tahoe Keys and Lake Tallac area (FEMA 2009). The LOMR revised flood zone mapping in the northwest corner of the study area but did not revise the base flood elevations.~~ wetland had occurred over the decades since the initial maps were produced in 1981 and 1995. Base topography for these most recent FEMA studies came from several sources (including the 2002 1-foot-interval Light Detection and Ranging [LiDAR] from the CSLT). The vertical datum was updated to North American Vertical Datum (NAVD) 88 in 2010. The recent FEMA Flood Insurance Study (FIS) updated hydrology to use 100-year peak flows of 7,376 cubic feet per second (cfs) on the Upper Truckee River and 948 cfs on Trout Creek (FEMA 2012). These values are 274 cfs lower and 48 cfs higher, respectively, than those listed in Table 3.8-3. FEMA delineated the floodplain boundaries using two sources of 1-foot contours, supplemented with USGS 7.5-minute topographic quadrangle map contours (FEMA 2012).

Nearly all of the study area is within ~~in~~ the effective FEMA 100-year floodplain, except the uplan~~ds~~ areas adjacent to the Highland Woods subdivision, between Cove East Beach and the Sailing Lagoon, and along the margins of the Tahoe Keys Marina (Exhibit 3.8-14a and 3.8-14b). The Upper Truckee River and Trout Creek channels, adjacent areas, and the shared floodplain in the central meadow are in the designated floodway. ~~The FEMA base flood elevations in the Upper Truckee River marsh range from approximately 6,243 feet NGVD (6,247 feet NAVD [North American Vertical Datum], used by FEMA) at the U.S. 50 crossing, to approximately 6,230 feet NGVD (6,234 feet NAVD) near the mouth of the river.~~

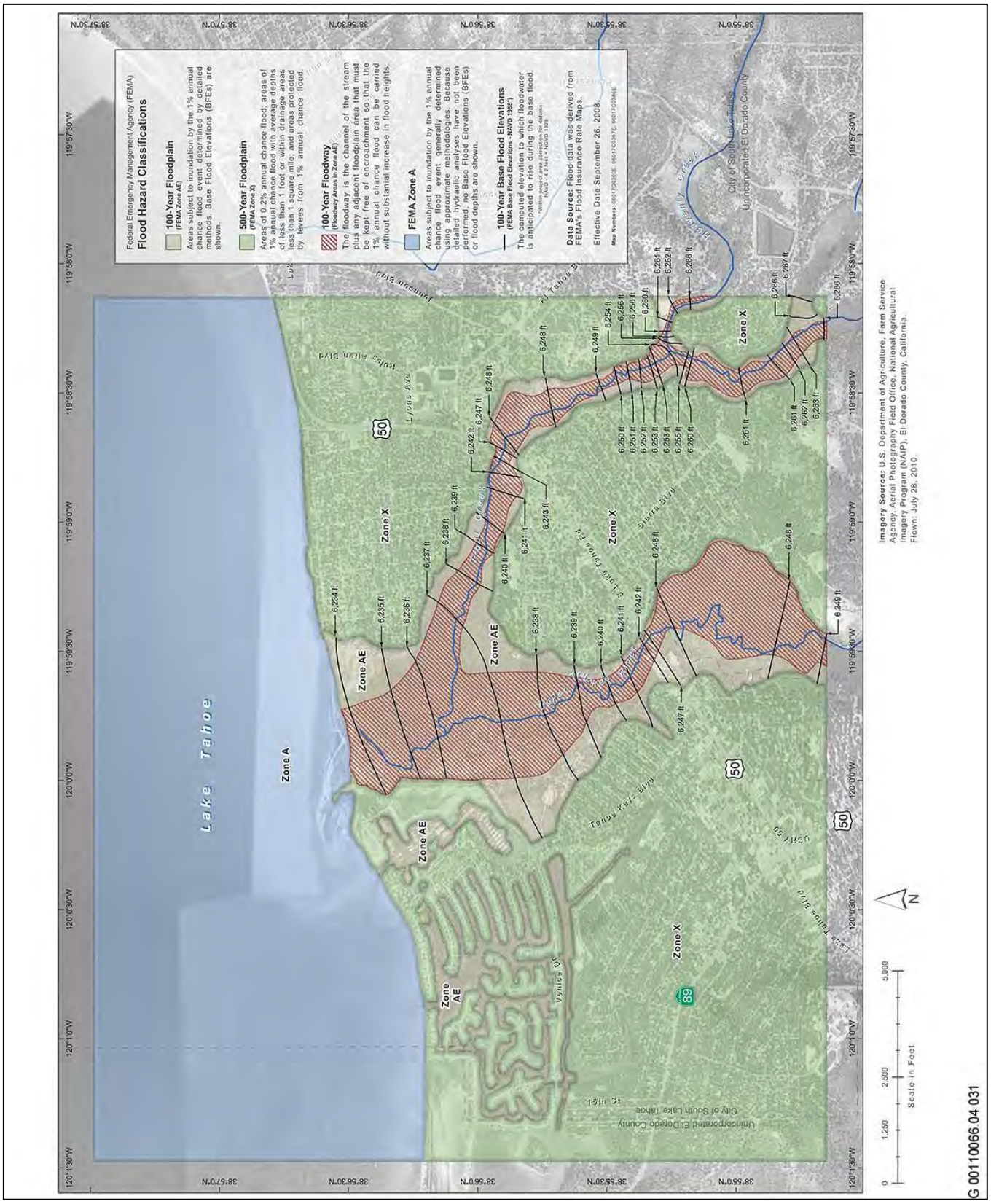
~~Some residential areas adjacent to the study area (a couple of streets in Tahoe Island and some lots in Sky Meadows) are within the floodplain fringe west of the Upper Truckee River. A few lots in Al Tahoe (along El Dorado Avenue, Edgewood Circle, and Lilly Avenue) are along the edge of the regulatory floodplain east of Trout Creek (Exhibit 3.8-14).~~ Some residential areas adjacent to the study area, including portions of Tahoe Island (from the northern intersection of Tahoe Keys Boulevard and Michael Drive east along Colorado Court to the southeast end of Colorado Avenue and including the corner of Michael Drive east of Oregon Avenue) and several lots in Sky Meadows are within the floodplain fringe west of the Upper Truckee River. A few lots in Al Tahoe

(along El Dorado Avenue, Edgewood Circle, and the west end of Lilly Avenue) are in the edge of the regulatory floodplain east of Trout Creek (Exhibits 3.8-14a and 3.8-14b).

The 100-year flood WSELs in the Upper Truckee River marsh as modeled by FEMA (2012) range from approximately 6,247 feet NAVD upstream of the U.S. 50 crossing to approximately 6,232 feet NAVD along the beach ridge (Exhibits 3.8-14a and 3.8-14b).

~~FLOOD PROFILES FOR THE UPPER TRUCKEE RIVER~~ ONE-DIMENSIONAL HEC-RAS MODELING

In 2005, hydraulic modeling ~~has been~~ was performed for the study area to estimate flood boundaries and elevations, using the USACE Hydraulic Engineering Center's River Analysis System (HEC-RAS) model (Version 3.1.2) in combination with geographic information system (GIS) applications (ArcView and HEC-GeoRAS) (Conservancy 2003, Conservancy and DGS 2005). This one-dimensional (1D) modeling routed the ~~large and~~ assumed concurrent



~~Source: Conservancy and DGS 2003~~

~~Exhibit 3.8-14 FEMA Floodplain Overlain on Aerial Map~~

peak-flow hydrographs for both the Upper Truckee River and Trout Creek through the study area, and included the effects of changing floodplain storage on resulting water surface elevations. The worst-case analysis assumed a high initial lake level (6,229 feet). The modeled flood hydrographs spanned the 5-year to 100-year events, and thus covered the range of flows that are likely to be associated with flood hazards. The 100-year event peak flows for the Upper Truckee River and Trout Creek were estimated to be 7,650 cfs and 900 cfs, respectively. Historic streamflow data and statistical analysis were used to estimate these flows. The peak flow was then applied to the rainfall hydrograph to produce a total storm hydrograph to input into the model.

The 1D flood model was calibrated using field markings in Sky Meadows and Colorado Court from the January 1997 event (Conservancy and DGS 2005:6-10, 6-11). In 2000, p~~P~~hotographs, homeowners' recollections, and remaining flood debris/damage marks were used to field-survey water levels from the 1997 event. ~~(The survey occurred in 2000.)~~ Simulated water surface elevations were generated by model runs that used the range of estimated peak flow for the 1997 event. Comparison of the field-surveyed water surface data to the simulated elevations supported calibration of the 1D model (Table 3.8-4).

Table 3.8-4
Surveyed and Simulated Water Surface Elevations for the January 1997 Flood

Location	Surveyed Elevation Range (feet)	Simulated Elevation Range (feet)*		
		At 5,560 cfs	At 6,560 cfs	At 7,500 cfs
Sky Meadows	6,236.80 to 6,237.02	6,236.44	6,236.78	6,237.08
Colorado Court	6,232.00 to 6,232.04	6,231.95	6,232.16	6,232.35

Notes: cfs = cubic feet per second

* Modeled three different peak flows for the range of estimated 1997 peak flows downstream of the U.S. Highway 50 bridge.

Source: Conservancy and DGS 2005

The calibrated results of the 1D hydraulic modeling include profiles of the existing channel bed, banks, and floodwater surfaces of the Upper Truckee River~~. As discussed above~~, showing that the channel's capacity is large enough to contain the 5-year event in the upstream portion of the study area between U.S. 50 and the "big bend" (Exhibit 3.8-15). The 5-year floodwater surface is about equal to the bank heights from the "big bend" to just upstream of the Colorado Avenue outfall. Downstream of this area, the 5-year water surface is higher than the east bank and higher than the west bank in some short reaches, including the restored LWS wetland. As expected, the 100-year water surface elevation exceeds the bank heights throughout the project reach, with the exception of the reserved fill "islands" along the restored LWS wetlands. The results of the previous 1D modeling were used to describe the existing conditions and evaluate and compare the action alternatives in the Draft EIR/EIS/EIS.

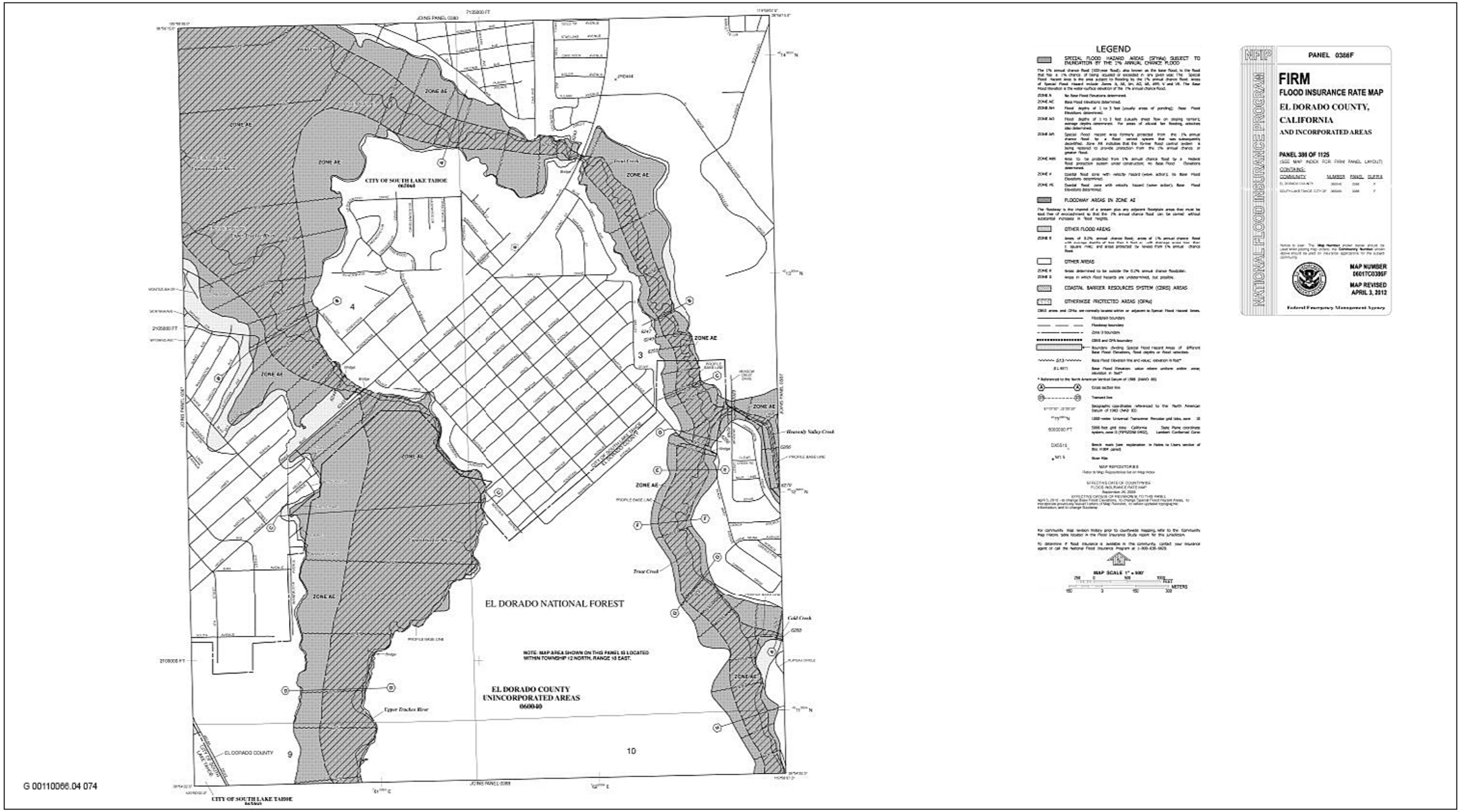
5.6 REVISIONS TO SECTION 3.9, "GEOMORPHOLOGY AND WATER QUALITY"

The text of Mitigation Measure 3.9-7 (Alt. 3) on page 3.9-67 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

Mitigation Measure 3.9-7 (Alt. 3): Monitor and Adaptively Manage Delivery of Coarse Sediment to Cove East and Barton Beaches.

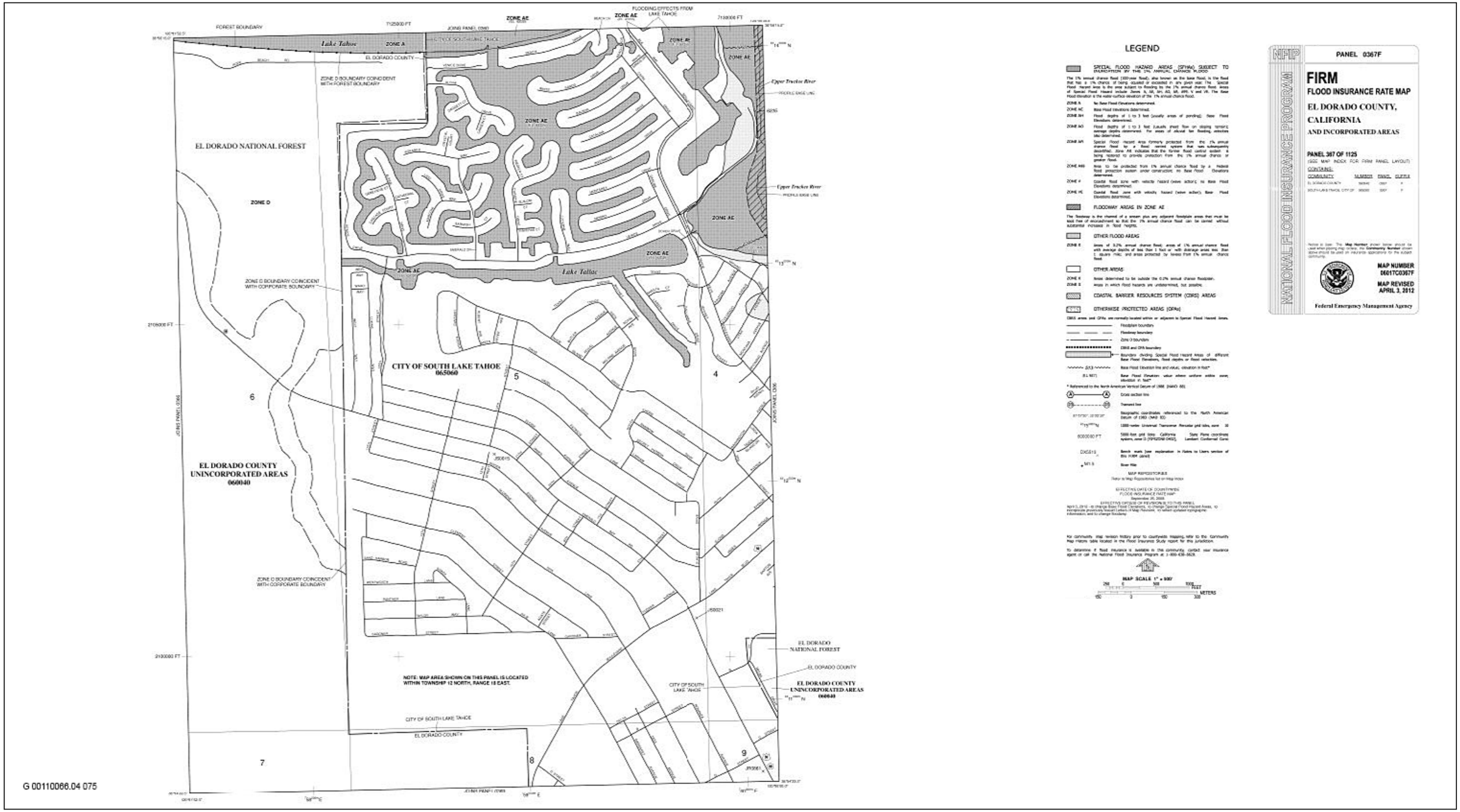
During the period of channel adjustments following construction, and until the streambed profile attains a relatively continuous slope within the study area, the Conservancy will monitor the supply of coarse sediment entering the study area, deposition within the treated reaches, and beach-face erosion 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

This page intentionally left blank.



Source: Data compiled by Cardno in 2015 based on FEMA 2012 data

Exhibit 3.8-14a **FEMA Effective FIRM Panel 386F**



Source: Data compiled by Cardno in 2015 based on FEMA 2012 data

Exhibit 3.8-14b **FEMA Effective FIRM Panel 387F**

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 pursued as a corrective action, the coarse sediment shall be similar in lithology (rock type) and morphology (size and shape) to the native sands; washed free of fine sediments or contaminants; and obtained from a permitted borrow/quarry location.

5.7 REVISIONS TO SECTION 3.12, "PUBLIC SERVICES"

The text discussing the environmental setting related to law enforcement on pages 3.12-4 and 3.18-5 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

ENVIRONMENTAL SETTING

Law Enforcement

~~*South Lake Tahoe Police Department*~~

~~Police service in the study area is provided by the South Lake Tahoe Police Department (SLTPD). SLTPD is located within the government complex at the intersection of Al Tahoe and Johnson Boulevards. This complex also houses the El Dorado County Superior Court, Sheriff-Coroner, and Sheriff's Department, among others.~~

~~SLTPD is allocated 41 sworn officers for an estimated 1.7 officers per 1,000 residents (based on the current population of approximately 24,000 residents). These staffing numbers may vary slightly, based on availability of grant-funded positions and increases from seasonal work force employment. The population of South Lake Tahoe can reach 75,000 during the summer months. Because of this fluctuation, SLTPD does not use staffing ratios to determine human resource needs. SLTPD's response-time goal is to arrive in less than 3 minutes for priority one calls (rape, robbery, or crimes in progress), none of which has generally been an issue in the study area. Only priority one calls are tracked; thus, response-time goals are not set for other calls (Daniels, pers. comm., 2007).~~

~~SLTPD has informal mutual aid agreements with the El Dorado County Sheriff's Department and the Douglas County Sheriff's Department for response during critical incidents. While the study area is state land, it is within a local response area, not a state response area (PRC Section 4125-4128).~~

El Dorado County Sheriff's Department

The Conservancy contracts with the El Dorado County Sheriff's Department to provide patrols of the project area. Although the study area is not the primary jurisdiction of the Sheriff's Department, the Conservancy utilizes its services to supplement management of the property.

The El Dorado County Sheriff's Department has an informal mutual aid agreement with the South Lake Tahoe Police Department for response during critical incidents.

5.8 REVISIONS TO SECTION 3.18, "CUMULATIVE IMPACTS"

The text discussing related projects considered in the cumulative impact analysis on pages 3.18-4 through 3.18-12 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

RELATED PROJECTS CONSIDERED IN THE CUMULATIVE IMPACT ANALYSIS

Past Projects

The Upper Truckee River, its watershed, and surrounding areas have been substantially altered by land use practices during the past 150 years. The opening of the Comstock silver mining boom in Nevada in mid-1859 prompted a surge in timber harvesting, and agricultural and developed land uses also increased. From the 1900s to the present, developed land uses have continued to increase, particularly since 1960. For example, the population of the city of South Lake Tahoe has increased five-fold since 1960 (CSLT 2003).

As a result of these changes in land use, the Upper Truckee River watershed has experienced ecosystem degradation that is typical of what has occurred elsewhere in the Tahoe Basin (Murphy and Knopp 2000). The river has been modified from its original conditions by human activities such as logging, livestock grazing, and road construction, and by residential, commercial, and industrial developments (including the Lake Tahoe Airport and U.S. 50 bridge). Many of these past actions continue to affect resources in the project vicinity and Upper Truckee River watershed, and along the south shore of Lake Tahoe. These major past actions include the following:

- *Historic Timber Harvests.* Most forests within the watershed of the Upper Truckee River have been grazed and logged during the past 150 years, and an associated network of skid trails, flumes, logging roads, and railroads has been constructed during that time (Murphy and Knopp 2000). This extensive grazing, logging, and road construction altered biologic, hydrologic, geomorphic, and other resources in the Upper Truckee River watershed, including the project vicinity. Some logging occurred in the study area, and the study area was grazed for more than 100 years beginning in the 1860s (Lindström 1995, 1996). Both this grazing and the network of water impounding and diverting dams, gates, and miscellaneous earthen works affected resources in the study area and adjacent areas.

- *Fire Suppression.* Before the late 1800s, fires were frequent in the Tahoe Basin, and were mostly of low to moderate intensity. Since that time, changes in land use and fire management have altered the frequency and intensity of fires. In particular, since about the 1920s, fire suppression has resulted in a several-fold increase in tree density and fuel loads in most forests in the Tahoe Basin (Barbour et al. 2002:461–462). These changes in forest structure have altered biological habitats and increased the frequency of high-intensity fires and the vulnerability of trees to insect outbreaks.

- *Species Introductions.* Nonnative species have been accidentally or deliberately introduced into the aquatic and terrestrial ecosystems of the Tahoe Basin. Species that have become particularly abundant and are present in the project vicinity include cowbird (*Molothrus ater*), beaver (*Castor canadensis*), brown trout (*Salmo trutta*), brown bullhead catfish (*Ictalurus nebulosus*), cheatgrass (*Bromus tectorum*), and Eurasian milfoil (*Myriophyllum spicatum*) (Conservancy and DGS 2003). These species have been altering the resources of the project vicinity, the Upper Truckee River watershed, and the south shore of Lake Tahoe.

- *Urban Development.* During the past 150 years, a portion of the watershed of the Upper Truckee River has been converted to developed land uses. Based on a review of land cover within the watershed (using geographic information system [GIS] data layers from CAL FIRE 2002 and California Interagency Watershed Mapping Committee 2004), this portion is about 9 percent, concentrated in the lower elevation areas of the watershed, and includes much of the project vicinity. Urban development has been altering hydrologic, geomorphic, and other resources within the Upper Truckee River watershed, including the project vicinity. Several development projects along the Upper Truckee River have adversely affected geomorphic processes, water quality, and habitats: the golf course at the Lake Valley State Recreation Area (SRA), the South Lake Tahoe Airport, U.S. 50, and the Tahoe Keys Marina and residential area. (In particular, construction of the Tahoe Keys Marina and Tahoe Keys residential area has substantially affected resources in the project vicinity, as described separately below.)

- *Newlands Project—Tahoe City Dam.* Since 1870, a dam has been operated at Tahoe City to regulate the flow of water from Lake Tahoe into the Lower Truckee River. After enactment of the Reclamation Act of 1902, the Secretary of the Interior authorized construction of the Newlands Project, and during 1909–1913, the dam at Tahoe City was reconstructed to its present configuration. This dam controls the top 6.1 feet of storage at Lake Tahoe as a federal reservoir. The Truckee River Operating Agreement governs the operation of this dam, and consequently the surface elevation of Lake Tahoe (Reclamation 2008), which has a substantial effect on the resources of the study area.

- *Tahoe Keys Marina and Tahoe Keys Residential Area.* From the late 1950s into the 1970s, construction of the Tahoe Keys Marina and the Tahoe Keys residential area substantially altered the Upper Truckee Marsh and the downstream reach of the Upper Truckee River. During this time, approximately 500 acres in the center of the marsh was excavated to create canals and the Tahoe Keys Marina, and fill was placed to create the housing pads of the Tahoe Keys residential area. This project fragmented the marsh into what is now known as Pope Marsh on the west and the Upper Truckee Marsh on the east. In addition, by 1965, the adjacent portion of the Upper Truckee River was channelized, which effectively disconnected it from its former floodplain (Conservancy and DGS 2003).

- *Heavenly Mountain Resort Master Plan* This plan by Vail Resorts, Inc. guided improvement, expansion, and management of facilities and uses at Heavenly Mountain Resort, including areas within the Cold Creek watershed (which is within the Trout Creek watershed) (Vail Resorts 2007). Phase I projects included replacing ski lifts and regrading ski trails; constructing a 1,000-seat restaurant, a bridge for skiers, and new ski trails; and constructing other facilities. The project involved construction activities (e.g., installing trail, road, and pipeline crossings) in the channel of perennial waterways.

- *Lower West Side Wetland Restoration Project.* During the summers of 2001 and 2002, approximately 12 acres of former wetland that was filled during Tahoe Keys construction was excavated three to five feet, and subsequently restored as wetland and reconnected to the Upper Truckee River as part of the active floodplain. The Lower West Side Wetland Restoration Project area is located next to Tahoe Keys Marina behind Cove East Beach, west of the river.

- *Angora Creek Restoration Projects.* Two restoration projects were completed by the California Department of Parks and Recreation (DPR) on Angora Creek, in 1997 and 2002:

  - A reach of Angora Creek that flows through the study area was restored in 1997. That reach was channelized and diverted to dry the meadow for grazing. The Lake Tahoe Golf Course was later built over part of this meadow and abandoned channel. Both reaches were restored, building a new, more sinuous channel reconnected to the meadow floodplain. The objective of both projects was to decrease erosion, enhance wetland and riparian habitat, and improve water quality by restoring the stream channel to a geomorphically functioning condition. Restoring the bed elevation and sinuosity of the stream restored access to the meadow floodplain, raised groundwater elevations, increased sediment deposition and nutrient removal, and improved meadow health.

  - In 2002, DPR restored a second reach of Angora Creek, as well as the adjacent meadow. A section of Angora Creek once meandered through a wet meadow, but the stream was captured by the South Tahoe Public Utility District's sewer alignment in the 1960s. The stream deviated from its original winding path over the sewer, giving the stream more power and causing an increase in erosive forces. The channel had down-cut, scouring the bed of the stream to two feet below its original elevation. This in turn caused the meadow to dry out and degraded critical habitat.

- *Angora Fisheries and Water Quality Project.* This project, completed in 2010 by the Conservancy, El Dorado County, and Reclamation, is located in the watershed of the Upper Truckee River at the Angora Creek crossing of Lake Tahoe Boulevard (El Dorado County DOT 2006). The project involved modifying Angora

Creek near the culverts under Lake Tahoe Boulevard to improve fish passage. As part of these modifications, fill was removed in the Stream Environment Zone (SEZ) and the existing culverts were replaced. Angora Creek was dewatered and isolated while the culverts were replaced.

- *Upper Truckee Middle Reaches 3 and 4 Restoration Project.* This project was implemented by the CSLT with funding from the Conservancy and Reclamation and completed in 2011. The project is located along the Upper Truckee River from roughly 0.5 mile northeast of the northern runway limit of the Lake Tahoe Airport to approximately the midpoint of the runway (Reclamation, CSLT, and TRPA 2008). The objectives were to restore natural river and floodplain processes by increasing overbank flow and depositing sediment onto the floodplain, and to improve habitat for terrestrial and aquatic wildlife. To accomplish these objectives, a new channel (approximately 4,000 feet long) was constructed and revegetated and the abandoned channel was backfilled and revegetated. A new floodplain was constructed by removing existing fill. Construction of this new channel and floodplain entailed constructing a temporary river crossing, removing and stockpiling approximately 52,000 cubic yards of soil, and removing and stockpiling a large amount of plant materials. Additionally, three fish barriers were removed and three in-channel habitat structures were constructed. The total area of disturbance associated with this project was approximately 28 acres.

- *Trout Creek Restoration Project.* Trout Creek is a tributary to the Upper Truckee River, reaching the confluence within the study area. Geomorphic problems with Trout Creek stem from channelization of the lower portions of this stream during construction of a 19th-century railroad route. The straightened channel produced an incised and eroded bed, sand and sediment deposition, and degraded aquatic and riparian habitat conditions. As a part of efforts to control sediment delivery into Lake Tahoe and stabilize stream channels in the watershed, a restoration project began on Trout Creek to reconstruct natural channel sinuosity, pool-riffle sequences, substrate composition, bank stability, and hydrologic function. The project site was located on lower Trout Creek meadows, above and below the confluence with Cold Creek. Restoration of the upper channelized section of stream (above Cold Creek) to control erosion and stabilize the channel involved completely replacing this upstream reach with an adjacent reconstructed sinuous channel. The channel and bank of the downstream reach (below Cold Creek) was only partly reconfigured, interspersed with existing channel forms where natural sinuosity occurred. The reconstruction project was completed during 2000–2001, with flow of the creek redirected into the new channels in summer 2001 (Herbst 2009:2–3).

- *Lake Tahoe Airport Runway Restoration Project.* This project by the CSLT was located at the South Lake Tahoe Airport adjacent to the Upper Truckee River. Along the existing runway, the CSLT removed a 25-foot-wide by 1,300-foot-long area of impervious surface and replaced a portion of this area with pervious concrete. Fill within the SEZ of the Upper Truckee River was removed and the area revegetated. The project did not involve activities within the channel of the Upper Truckee River or any perennial tributaries of the river. The project was completed in 2010.

- *Multi-Agency Erosion Control Projects.* Multiple agencies have completed erosion control projects throughout the Upper Truckee River watershed and elsewhere in the Tahoe Basin to restore the clarity of Lake Tahoe. Most projects addressed erosion control and source runoff improvements, as well as the implementation of best management practices (BMPs) to capture fine sediment and other pollutants before they reach the lake. Erosion control projects and advance treatment methods are implemented to reduce both the volume of water running off roadways and the amount of fine sediment, nitrogen, and phosphorus discharging into Lake Tahoe. El Dorado County, the Conservancy, TRPA, Caltrans, CSLT, and the U.S. Forest Service (USFS) have implemented erosion control measures along Angora Creek, U.S. 50, North Upper Truckee Road, Al Tahoe neighborhood, and other roadways, including forest roads and trails. Measures include redesign and replacement of inadequately sized culverts, inlets, and outfalls; revegetation and other source control measures on eroding slopes; and installation of curbs and gutters, rock bowls at culvert outlets, vegetated swales, and sediment traps and other BMPs. Specific project examples in the Upper Truckee River watershed include El Dorado SR 89, Segment 1–Luther Pass to Meyers Water Quality

Improvement Project, Apalachee 3B–Water Quality Project, Christmas Valley Phase 2 Water Quality and Recreation Access, and U.S. 50 Caltrans Water Quality Projects.

- *Sawmill 1B Bike Trail Project—Air Quality and Recreation Access.* This project by El Dorado County, with funding from the Conservancy and TRPA, is located along U.S. 50 from the entrance to the Lake Tahoe Golf Course to Sawmill Road (Ferry, pers. comm., 2007). It provides a bike trail across the project area. This project involved some construction activities in the channel of waterways (e.g., footings and abutments of crossings). Construction was completed in 2010.

- *Sawmill 2 Bike Path and Erosion Control Project.* This project by El Dorado County, with funding from the Conservancy and USFS, is located in the watershed of the Upper Truckee River along Sawmill Road from Lake Tahoe Boulevard to U.S. 50. It provides a bike trail and BMPs to reduce erosion and nutrient loading and increase treatment of stormwater runoff from impervious surfaces in the project area. Construction was completed in 2014.

- *Riparian Hardwoods Restoration and Enhancement Description.* This project by DPR was completed in 2011 in selected areas of DPR properties, including Washoe Meadows State Park and Lake Valley State Recreation Area. It involved removing lodgepole pines from areas of aspen, willow, and alder along the maintenance road adjacent to the Upper Truckee River upstream of the golf course (DPR and Reclamation 2007). The project did not involve construction activities in the channel of a perennial waterway.

- *High Meadows Forest Plan Designation; Ecosystem Restoration; and Access and Travel Management Project.* This USFS project was located on 1,790 acres in the upper Cold Creek watershed, part of the Trout Creek watershed (USFS 2008a). Its purpose included guiding management of the property and restoring the channel of Cold Creek through the High Meadow Complex to increase water and sediment storage, to allow it to function as a wet meadow ecosystem, and to provide for current and future recreation needs and reduce the impacts associated with recreation. The project was completed in 2012.

Present and Reasonably Foreseeable Projects

Present and reasonably foreseeable, probable future projects are those projects that are currently under construction, approved for construction, or in various stages of formal planning. Some of these projects are planned to be under construction during the period when this project is expected to be constructed (2015–2018).

The present or reasonably foreseeable, probable future projects considered in this cumulative analysis are those projects that are located within the Upper Truckee River watershed and the south shore area of the Tahoe Basin and that have been identified as potentially affecting resources that also may be affected by the Upper Truckee River and Marsh Restoration Project. Table 3.18-2 lists these related projects. A preliminary list of projects was compiled by reviewing available information regarding planned projects (including agency Web sites), and by contacting staff members from the CSLT, the Conservancy, El Dorado County, Lake Valley Fire Protection District, DPR, TRPA, and USFS. Projects were then reviewed for inclusion in the cumulative impact analysis based on three criteria:

(1) The project is reasonably foreseeable because it has an identified sponsor and has initiated CEQA, TRPA, and/or NEPA environmental review or other regulatory procedures.

(2) Available information defines the project in sufficient detail to allow meaningful analysis.

(3) The project could affect resources potentially affected by the Upper Truckee River and Marsh Restoration Project.

Identified projects that satisfied these three criteria have been organized into the following three categories:

(1) river and stream restoration,

(2) water quality and erosion control, and

(3) other projects.

The projects within each of these categories are listed in Table 3.18-2.

Table 3.18-2
List of Related Projects in the Upper Truckee River Watershed and the South Shore Area

Name	Description and Status
River ~~and~~, Stream, and Meadow Restoration Projects	
Sunset Stables Restoration Project	**Description:** This project proposed by the Conservancy and the USFS would be located in a 739-acre Management Planning Area in the vicinity of the South Lake Tahoe Airport, and adjacent to and directly south of the Upper Truckee Middle Reaches 3 and 4 Restoration Project (Conservancy and DGS 2008a). Its goals include restoring a more naturally functioning river and floodplain, improving water quality by restoring floodplain processes, and reducing erosion from bank failure. The project would restore, enhance, and protect aquatic and terrestrial habitat diversity and quality and provide for appropriate and compatible public access. To accomplish these goals, it would restore a portion of the 2.6-mile-long reach of the Upper Truckee River that is in the Management Planning Area. This new channel would start east of the U.S. 50 bridge and would be designed around existing sewer and water pipelines to the extent possible. Lateral grade controls would be installed where the new channel crosses the old channel, and vertical grade controls would be installed where the new channel transitions to existing channel. Implementation would entail excavating new channels, and after the new channels have been revegetated, diverting the river's flow into the new channel(s) and filling and revegetating the abandoned channel. Status: Environmental review (IS/MND and EA/FONSI) is complete and construction of the first phase (Reach 5) began in 2012 and will be complete in 2016. Construction of the second phase (Reach 6) has not secured construction funding and would begin construction in ~~2015~~ 2016 at the earliest and last for four years.
Upper Truckee River Middle Reaches 1 and 2 Stream Restoration Project	**Description:** This project led by the Conservancy ~~and the USFS~~ would be located from U.S. 50 upstream to the vicinity of the South Lake Tahoe Airport, and just downstream of the Upper Truckee Middle Reaches 3 and 4 Restoration Project. The objectives of the Upper Truckee Middle Reaches 1 and 2 Stream Restoration Project are to (1) eliminate a gully that is eroding along the river at this site, and (2) enhance aquatic and adjacent terrestrial habitat along the Upper Truckee River. To accomplish these objectives, the gully channel would be filled and revegetated, and portions of the channel banks of the Upper Truckee River would be recontoured and revegetated. Some riparian enhancements, bank stabilization, and aquatic habitat structures are also being considered (Carroll, pers. comm., 2008). **Status:** Currently the project is on hold while the USFS proceeds through the federal land acquisition process with the intention of acquiring the property by 2013. The environmental document (IS/MND and EA/FONSI) is being developed. Construction could begin in ~~2014~~ 2016 and would last for 1 season, with only irrigation anticipated in subsequent seasons.
Upper Truckee River Restoration and Golf Course Reconfiguration Project	**Description:** This DPR, TRPA, and Reclamation project would occur in the Upper Truckee River watershed at Washoe Meadows SP and Lake Valley SRA. The purpose of the project is to improve geomorphic processes, ecological functions, and habitat values of a 1.5-mile reach of the Upper Truckee River, helping to reduce the river's discharge of nutrients and sediment that diminish Lake Tahoe's clarity while providing access to public recreation opportunities in Washoe Meadows SP and Lake Valley SRA. Four alternative approaches to implementing the proposed project are being considered, along with the No-Project/No-Action Alternative. Depending on which alternative is selected, the proposed restoration project may include continuing existing golf course use, removing

Name	Description and Status
	the entire Lake Tahoe Golf Course, or reconfiguring the golf course to allow for restoration of the river, reduce the area of SEZ occupied by the golf course, and allow for establishment of a buffer area between the golf course and the river. The four action alternatives (Alternatives 2–5) and the No-Project/No-Action Alternative (Alternative 1) ~~are~~ were analyzed in the Draft EIR/EIS/EIS. Under the No-Project/No-Action Alternative, Alternative 1, the river restoration and changes to the golf course would not be implemented. This alternative represents a projection of reasonably foreseeable future conditions that could occur if no project actions were implemented. Alternative 2 would involve restoring the Upper Truckee River and providing a reconfigured 18-hole regulation golf course. Alternative 3 would involve restoring the river and providing a reduced-play golf course. Alternative 4 would use a combination of hard and soft stabilization to keep the river in its present configuration and would involve only minor changes to the existing golf course. Alternative 5 would involve decommissioning and removing the 18-hole regulation golf course to restore all or a portion of the golf course landscape to meadow and riparian habitat. **Status:** An EIR/EIS/EIS ~~is currently being~~ was prepared for the project. DPR is currently considering how to proceed with the project. ~~Construction could begin in 2014, and~~ The construction period is currently unknown but would be expected to last for three to four years (with most in-channel work occurring during one season).
~~**High Meadows Forest Plan Designation; Ecosystem Restoration; and Access Travel Management Project**~~	~~**Description:** This project by USFS would be located on 1,790 acres in the upper Cold Creek watershed, which is part of the Trout Creek watershed (USFS 2008a). Its purpose includes guiding management of the property, restoring the channel of Cold Creek through the High Meadow Complex to increase water and sediment storage and to allow it to function as a wet meadow ecosystem, and to provide for current and future recreation needs and reduce the impacts associated with recreation. The project could include creation of approximately 8,700 feet of new channels and associated floodplain on the mainstem, East Fork, and North Fork of Cold Creek; removal and fill of diversion ditches; removal of lodgepole pines; rerouting and decommissioning of roads and trails; and redesign of stream crossings by roads and trails to reduce effects on aquatic ecosystems. **Status:** The project is to be completed in 2012.~~
Restoration of Fire Adapted Ecosystems	Description: This project, proposed by USFS, is located at multiple locations throughout El Dorado and Placer counties, California; and Carson City and Douglas counties, Nevada. The project intends to use hand thinning and prescribed fire to restore priority meadows to reduce conifer encroachment, improve native riparian/wetland plant abundance and vigor, and improve habitat for native riparian dependent species. Status: Environmental review is in progress; scoping was initiated in 2012 and a decision is expected in May 2015. Implementation is expected to begin in Summer 2016.
Erosion Control and Water Quality Projects	
Sierra Tract Erosion Control Project	**Description:** This project, proposed by the CSLT with funding from the Conservancy and USFS, is located in the Sierra Tract subdivision in the Trout Creek watershed in South Lake Tahoe. It entails constructing a stormwater conveyance and treatment system and stabilizing roadsides with vegetation. This project has been structured into five phases. The project does not include activities in the channel of a perennial waterway. **Status:** Phases 1 and 2 have been completed, except for a small Phase 1c that is on hold. (USFS 2007). Phases 3 and 4 ~~is being planned and designed and will~~ be constructed in ~~2012~~2015 and 2016. ~~Phases 4 and 5 are future projects whose schedule is dependent on the availability of funding is scheduled for 2015.~~
Montgomery Estates Phases 1, 2, and 3 Water Quality Project	**Description:** This project proposed by El Dorado County, with funding from the Conservancy and USFS, would be located in the watershed of Trout Creek in the El Dorado County. It would implement various slope stabilization, infiltration, sediment trapping, and channel or road source treatment BMPs to reduce the amount of sediment discharging into Cold Creek and Trout Creek. **Status:** Environmental review is complete, ~~Phase 1 is scheduled to be completed in 2012. Phase 2 is~~

Name	Description and Status
	~~scheduled for 2013~~ Phases 1 - 3 are constructed..
~~**Christmas Valley Phase 2 Water Quality and Recreation Access**~~	~~**Description:** This project by El Dorado County, with funding from the Conservancy and USFS, would be located in the watershed of the Upper Truckee River along SR 89 from the intersection with U.S. 50 to Portal Drive (Ferry, pers. comm., 2007). It would reduce both peak discharge of stormwater during large storm events and the quantity of fine and coarse sediment entering the Upper Truckee River from the project area. The project would not involve activities in the channel of a perennial waterway.~~ ~~**Status:** Construction is scheduled to be completed in 2012~~
~~**Sawmill 2 Bike Path and Erosion Control Project**~~	~~Description: This project by El Dorado County, with funding from the Conservancy and USFS, would be located in the watershed of the Upper Truckee River along Sawmill Road from Lake Tahoe Boulevard to U.S. 50 (Ferry, pers. comm., 2007). It would provide a bike trail through the project area, and it would install appropriate BMPs to reduce erosion and nutrient loading and increase treatment of stormwater runoff from existing impervious surfaces in the project area. This project would include construction activities in the channel of perennial waterways, which would be dewatered during construction.~~ ~~Status: Environmental review is complete and Phase 1 was completed in 2012 and Phase 2 is scheduled to be completed in 2013.~~
U.S. 50 from "Y" Intersection with State Highway 89 to Trout Creek Bridge	Description: This project by Caltrans is located within the CSLT on U.S. 50 from the "Y" intersection with State Route 89 to the Trout Creek Bridge. It is being completed in partnership with the Lahontan RWQCB, TRPA, and CSLT. The project will collect and treat stormwater runoff as part of the Lake Tahoe EIP. It will also widen the roadway to provide 6-foot shoulders for bike lanes; replace traffic signals; replace curbs, gutters, and sidewalks; and improve pavement cross slope. Caltrans is working with CSLT to incorporate improvements at Sierra Boulevard (signal and left-turn lane). Status: Environmental review is complete. Construction scheduled to begin in spring 2017 (utilities relocation expected to start in May 2015) and is expected to require 3 years for completion.
Upper Truckee Marsh Sewer Facilities Protection Project	Description: South Tahoe Public Utility District is implementing an adaptive management plan to protect the sewer infrastructure from flooding and reduce the risk of a sewer spill. Implementation of the adaptive management plan consists of measures designed to both prevent permanent establishment of Trout Creek over the sewer lines and to encourage flows to establish new flow paths to the south, away from the district's facilities. In Year 1 (2014) vegetative roughness elements were placed in the vicinity of the easement to prevent new channel establishment, along with reestablishing flow paths to the south. Some flow paths out of the existing channel leading northward to the easement were blocked to further direct flows southward. The Year 1 Plan also included removal of a portion of an abandoned historical roadway that crossed the marsh. The roadway fill constricted flood flows and prevented the creek from freely migrating across the marsh. The easement is expected to continue to become inundated during flood flows, but they are intended to reduce inundation to the seasonal or episodic character of pre-2011 conditions and to provide long-term protection of the sewer facilities by encouraging channel formation and future channel migration in areas away from the easement, along with sediment deposition over the easement. Status: Environmental review and Year 2 construction are complete. Construction will continue to for up to 3 more years as needed to adaptively manage flooding.
Other Projects	
US50/Stateline Corridor Project	The Tahoe Transportation District is partnering with the Federal Highway Administration, USFS, CSLT, TRPA, Nevada Department of Transportation, and California Department of Transportation are evaluating alternatives for the US50/Stateline Corridor Project. As identified in TRPA Environmental Improvement Program (EIP), recommended alternatives include water quality, intersection, roadway, pedestrian, bicycle, air, and scenic improvements. Several other projects identified in the EIP will be implemented as a packaged project. US-50 is the principal highway into South Lake Tahoe. Entering the Basin west of Echo Summit, it continues through the South Shore, crosses Stateline, continues to the East Shore, and exits the Basin at Spooner Summit. A major portion of traffic enters the Lake Tahoe Basin through this route, and traffic volumes are predicted to increase 27% over the next 20 years. Traffic delay has a major effect on the Lake environment including

Name	Description and Status
	impacts to air quality, and pedestrian, bicycle, transit, and vehicle travel. Status: The Draft EIR/EIS is currently being prepared.
Edgewood Lodge and Golf Course Improvement Project	Description: The approximately 231-acre project site is located within the Edgewood Tahoe Golf Course and includes a small area to the east across U.S. 50. The Edgewood Lodge and Golf Course Improvement Project would include construction of a new lodge complex with associated parking, and other improvements. The project would include construction of a 194-unit lodge complex, including accessory uses; expansion of the South Room at the Edgewood clubhouse; relocation of two existing lakefront residential lots; construction of a new public beach, lakefront recreation facilities, and pedestrian path; pier removal, relocation, and reconstruction; golf course and cart path modifications; and implementation of five threshold improvement projects. Status: The Final EIR was completed and the project approved. Construction could begin began in 2014.
Greenway Bike Trail Project	**Description:** This project by the Conservancy would be located between the intersection of Pioneer Trail and U.S. 50 in Meyers, California, and Van Sickle Bi-State Park at Stateline, Nevada. A portion of this project site is in the watershed of the Upper Truckee River and a portion is in the Trout Creek watershed. The project would also include restoration actions and fuel reduction actions along the trail route. The project would cross waterways on bridges or raised platforms, and the construction of these crossings would require some in-channel construction activities. **Status:** Phase 1 (Sierra Blvd to Van Sickle Bi-State Park) has completed environmental review and permitting (IS/MND and FONSI/EA) and construction. ~~pending funding and easement acquisition.~~ Phase 1a is scheduled to be constructed in ~~2014 at the earliest~~ 2015. Future phases of the trail would need to complete environmental review and obtain construction funding. The schedule is unknown.
Lake Tahoe Boulevard Enhancement Project	**Description:** This project by the Conservancy, El Dorado County, and USFS would be located in the watershed of the Upper Truckee River in a corridor along Lake Tahoe Boulevard from Tahoe Mountain Road to the CSLT. It would involve constructing a 2-mile-long bike trail along the road and implementing erosion control measures. The project would not involve construction activities in the channel of a perennial waterway. **Status:** Construction ~~-~~is complete.
Multi-Agency Fuel Reduction Plan	**Description:** This plan is a multiagency strategy for coordinating implementation of fuel reduction treatments in the Tahoe Basin (USFS et al. 2007). Treatment types (i.e., general prescriptions) include community defensible space–wildland urban interface, urban core, defense zone, and general forest prescriptions. All of these prescriptions reduce surface and ladder fuels, and tree density, to reduce flame lengths and the likelihood of crown fire. Treatment methodologies include thinning, pruning, prescribed burning, and masticating and chipping. The strategy identifies a substantial portion of the Upper Truckee River watershed as priority areas for treatment. These treatments would not involve construction activities in the channel of perennial waterways. **Status:** Fuel reduction treatments are ongoing and the plan identifies priority areas for treatment during the next five and ten years.
Angora Fire Restoration and Redevelopment	**Description:** Much of the Tahoe Mountain/North Upper Truckee neighborhood is being redeveloped after the Angora Fire in the summer of 2007 destroyed 254 structures. Current rules allow for property owners to pursue the replacement of previously existing development. Provisions allow for an expedited permitting process for landowners and for granting of fee waivers and allocation requirements. Coverage that was preexisting, including coverage located within SEZs and on steep slopes, may be redeveloped. Various agencies including the Conservancy, El Dorado County, and USFS have implemented erosion control techniques and provided assistance with removal of hazardous trees in the area. These agencies are proposing additional restoration activities including channel reconstruction and meadow and wetland complex restoration in the burn area. **Status:** Angora Fire restoration and redevelopment is ongoing. It is expected that additional restoration and redevelopment will continue for the next five to ten years.
Additional Urban Development	**Description:** This urban development would consist of numerous small residential, commercial, industrial, and infrastructure projects in the project vicinity and elsewhere in the watershed of the Upper Truckee River and south shore of Lake Tahoe. These projects might include some construction

Name	Description and Status
	activities in the channel of perennial or intermittent waterways (e.g., at road and utility crossings). Based on current land use planning and projected changes in population, additional urban development in the project vicinity, the Upper Truckee River watershed, and the south shore of Lake Tahoe is likely. Based on a review of land cover and general plan land use designations within the watershed (using the GIS data layers from CAL FIRE 2002, and California Interagency Watershed Mapping Committee 2004), approximately 8 percent of the watershed is in natural vegetation within areas zoned for developed land uses, and thus a portion of this natural vegetation could be converted to developed land uses in the foreseeable future. However, zoning does not necessarily guarantee development as most of the Basin is fully developed and most improvements are within existing developed land uses. Most development in the area consists of numerous small residential, commercial, industrial, and infrastructure projects. These projects might include some construction activities in the channel of perennial or intermittent waterways (e.g., at road and utility crossings). **Status:** Additional urban development is ongoing, and anticipated to be ongoing throughout implementation of the Upper Truckee River and Marsh Project.
Echo Summit Sidehill Viaduct	Description: This project by Caltrans will replace or rehabilitate the Echo Summit Bridge (Br#25-0044), which is located in El Dorado County 7 miles west of the city of South Lake Tahoe along U.S. 50, a major access route to the CSLT, near Echo Summit. At the project location, the road's width is very narrow and confined by a vertical rock cut slope on the mountain side and a nearly vertical downward slope on the Basin side. This project will address deficient structural components in a bridge that is in poor condition. The project may require the full closure of U.S. 50 for a period of time, or at minimum, one-lane closure for a portion of up to two seasons. Status: Environmental review is in process. Construction is expected to begin in spring 2019 and could continue for 2 years.
South Shore Fuel Reduction and Healthy Forest Restoration	Description: This USFS project is located throughout the entire South Shore area of Lake Tahoe and extends from Cascade Lake on the northwest to the Heavenly Mountain Resort special use permit boundary and the Nevada state line on the northeast, and from Lake Tahoe on the north to the LTBMU boundary on the south. The USFS intends to reduce the risk of high-intensity wildfire on National Forest System lands in the wildland urban interface in order to provide a defense zone between the National Forest and urban and/or suburban development. Status: Environmental review was completed in 2012. Project implementation was initiated in 2012 and is anticipated to take at least 8 years to complete.
Upper Echo Lakes Fuel Reduction	Description: This USFS project is located within the South Shore of Lake Tahoe adjacent to Upper Echo Lakes Recreation Residence Tract. The project involves fuels reduction treatments using hand thinning and pile burning around the Upper Echo Lake Recreation Residence Tract. Fuels reduction treatments would occur on a total of approximately 100 acres and within 300 feet of cabins. Status: Environmental review was completed in 2012. Project implementation began in 2013 and is expected to take up to 6 years to complete.
Tahoe Valley Area Plan	Description: The CSLT is preparing the Tahoe Valley Area Plan in collaboration with TRPA. This plan is being developed consistent with the coordinated planning and permitting process developed as part of the 2012 TRPA Regional Plan Update and consistent with requirements of a specific plan under California state law. The 335-acre planning area is centered on the intersection of U.S. 50 and State Route 89. The plan will serve as a long-term comprehensive land use and zoning plan for the Tahoe Valley community and reflects the CSLT's effort to rekindle the economic vitality and recognize the unique characteristics of the Tahoe Valley Community. Status: Environmental review on the draft plan was initiated in June 2014.
South Tahoe Middle School Area Connectivity Plan	Description: The Lake Tahoe Unified School District was awarded funding by the Tahoe Metropolitan Planning Organization for the South Tahoe Middle School Area Connectivity Plan as part of its "On Our Way" community grant program. Goals of the plan are to provide safer, more walkable and bikeable off-highway routes around South Tahoe Middle School, Bijou Park, and Lake Tahoe Community College for students, the community, and visitors. Status: A draft plan is currently under development. The goal is to develop a preferred alternative alignment with appropriate environmental review and schematic level design as the basis of an Active Transportation Program and/or Safe Routes to School construction grant application in May 2015.

Name	Description and Status
Lake Tahoe Community College Facilities Master Plan	Description: Lake Tahoe Community College developed a Facilities Master Plan in 2014 as part of its ultimate goal of becoming California's premier destination community college. The plan includes conceptual-level planning for 10 capital facilities projects, five of which are expected to qualify for state capital outlay funding. Potential projects include remodeling for efficiency, modernization, and enhancement; expansion of the early learning center; and development of a regional public safety training center, environmental studies and sustainability center, a university center, residential student living, and a solar-generating storage facility. Status: The master plan was developed in 2014 and includes a vision of implementation over the next 5–15 years. Project programs will be developed in detail as funding becomes available and through the planning process set in place by Lake Tahoe Community College.
South Lake Tahoe Parks, Trails and Recreation Master Plan	Description: The CSLT and El Dorado County developed a Parks, Trails and Recreation Master Plan for the South Shore. The plan represents a coordinated effort to align recreation resources and obtain community support to enhance recreation facilities and services for the Eastern Slope of El Dorado County. It provides direction for enhancing recreation opportunities for residents and visitors, including recommendations for regional coordination and collaboration; park and facility maintenance, renovations and improvements; new park, facility and trail development; recreation activities; programs and events; and operations and maintenance. Status: The master plan was drafted in August and finalized in November 2014. A CEQA analysis of the master plan in currently under way.

Notes: BMP = best management practice; CAL FIRE = California Department of Forestry and Fire Protection; Caltrans = California Department of Transportation; Conservancy = California Tahoe Conservancy; CSLT = City of South Lake Tahoe; EA = environmental assessment; EIP = Environmental Improvement Program; EIR = environmental impact report; EIS = environmental impact statement; FHWA = Federal Highway Administration; FONSI = finding of no significant impact; GIS = geographic information system; IS = initial study; LTBMU = Lake Tahoe Basin Management Unit; ND = negative declaration; Reclamation = U.S. Department of the Interior, Bureau of Reclamation; RWQCB = Regional Water Quality Control Board; SEZ = Stream Environment Zone; SP = (California) State Park; SR = State Route; SRA = State Recreation Area; DPR = California Department of Parks and Recreation; TRPA = Tahoe Regional Planning Agency; U.S. 50 = U.S. Highway 50; USFS = U.S. Forest Service.

Source: Data compiled by EDAW (now AECOM) in 2010 and by AECOM in 2015.

As a result of the corrected identification of American mannagrass to fowl mannagrass, the text of Section 3.18.3, "Cumulative Impact Analysis," on page 3.18-22 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

As a result of reasonably foreseeable projects, conditions for special-status plants, except for Tahoe yellow cress, would be improved or remain similar to existing conditions. In the Upper Truckee River–Trout Creek watershed, the combined long-term effect of reasonably foreseeable projects on some special-status plants could be beneficial because restoration projects would be implemented and other projects would avoid or minimize their effects on special-status plants; for other special-status plants and sensitive habitats, conditions would remain similar to existing conditions. ~~Reasonably foreseeable projects are not expected to affect American mannagrass.~~

Tahoe yellow cress could be adversely affected by construction and recreation activities resulting from reasonably foreseeable projects (e.g., Edgewood Lodge and Golf Course Improvement Project). Also, as discussed in Impact 3.18-C30 (Alts. 1–5), "Cumulative Geomorphology and Water Quality—Long-Term Modifications in Upper Truckee River Coarse Sediment Transport and Delivery Downstream," depending on the alternatives implemented by upstream restoration projects and depending on the effects of climate change, the delivery of sands and gravel to Tahoe yellow cress habitat at the study area's beaches could be affected. Potential effects of the action alternatives (particularly Alternatives 1-3) could combine with effects of other actions on transport and delivery of coarse sediment; however, the incremental or combined effects on beach erosion are not predictable

because climate change influences are highly uncertain. Conditions could range from worse than the existing degraded condition to a possible improvement regardless of changes in coarse sediment delivery. After thorough investigation, the cumulative effect on delivery of coarse sediment to the study area's beaches remains speculative.

~~The action alternatives differ in their effects on special-status plants. Under Alternative 2, lagoon restoration would increase the extent of potential habitat for American mannagrass, and the restoration and increased inundation of willow scrub-wet meadow under this alternative could also increase the extent of habitat. However, both of these effects are uncertain and may not alter the extent of suitable habitat for American mannagrass.~~

As a result of the corrected identification of American mannagrass to fowl mannagrass, the text of Section 3.18.3, "Cumulative Impact Analysis," on page 3.18-23 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

~~Although it includes lagoon restoration that could benefit American mannagrass,~~ Alternative 1 could potentially negatively affect Tahoe yellow cress by creating additional recreation features (the bridge and boardwalk) in the vicinity of occupied habitat that would create the opportunity for damage by recreationists. This contribution to the overall cumulative effect on Tahoe yellow cress of habitat loss and damage from human activities would be **significant**. Additional feasible mitigation is not available to reduce this impact to less than significant, so the residual impact would be **significant and unavoidable**.

5.9 REVISIONS TO CHAPTER 4.0, "OTHER REQUIRED SECTIONS"

The text of Section 4.5, "Environmentally Superior Alternative/Environmentally Preferred Alternative," on page 4-6 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

Based on the analysis of impacts on resources in Chapter 3 of the Draft EIR/EIS/EIS, the action alternatives present trade-offs related to overall environmental advantages. Implementing Alternative 1, 2, 3, or 4 would involve restoring the river and its floodplain, which would improve long-term water quality, increase the amount and improve the quality of aquatic and floodplain habitats, and restore the stream environment zone. These alternatives would have short-term and interim impacts on water quality that could not be avoided because of the strict turbidity criteria used to determine a significant and unavoidable impact (Section 3.8) and to sensitive habitats and wildlife (Section 3.4). Implementing Alternative 1 would also create long-term significant and unavoidable scenic impacts and Tahoe yellow cress impacts related to bridge construction (Sections 3.4 and 3.14). Implementing Alternative 3 could have a long-term significant unavoidable impact to fish passage through the study area during low flow periods if channel disconnectivity occurs (Section 3.5). Implementing Alternative 5 (the No-Project/No-Action Alternative) would avoid the adverse impacts generated by construction of additional recreational facilities; however, the long-term water quality and habitat benefits would not occur. Consequently, Alternative 5 (the No-Project/No-Action Alternative) is not the environmentally superior or environmentally preferred alternative.

Of the action alternatives evaluated in the Draft EIR/EIS/EIS, Alternative 2, New Channel—West Meadow (Minimum Recreation Infrastructure), ~~is~~ was considered the environmentally superior alternative because it involves a relatively minimal level of impacts associated with public access and recreational infrastructure while including river, lagoon, floodplain, and beach and dune restoration benefits comparable to or greater than those under Alternative 1, 3, or 4. However, unlike under the other action alternatives, implementing Alternative 2 would not provide recreation infrastructure to redirect public access from sensitive areas. Compared with the other action alternatives evaluated in the Draft EIR/EIS/EIS, this alternative minimizes construction activities and costs, maintenance and staffing responsibilities and costs, disturbances associated with infrastructure construction, and formal public access to locations throughout the study area.

Although Alternative 2 would be environmentally superior, it includes non-environmental trade-offs. Implementing Alternative 2 would provide the least benefit for public access and recreation opportunities and experiences.

The Preferred Alternative, recommended here in the Final EIR/EIS/EIS, includes the most beneficial and cost-effective elements of the five alternatives evaluated in the Draft EIR/EIS/EIS. This combined approach is also considered the environmentally superior alternative concept given it proposes the most geomorphically appropriate channel configuration allowing the pilot channel to strategically connect the current river alignment to historic channels and lagoons in a manner considered the most resilient to the potential impacts of climate change when compared to other action alternatives. The river would form its own pattern and spread over the expanse of the marsh, resulting in substantial benefits to habitats, wildlife, and long-term water quality; however, as with Alternative 3, the Preferred Alternative could have a long-term significant unavoidable impact to fish passage through the study area during low flow periods if channel disconnectivity occurs. It would also have short-term and interim impacts on water quality that could not be avoided because of the strict turbidity criteria used to determine a significant and unavoidable impact and to sensitive habitats and wildlife. Compared with the action alternatives evaluated in the Draft EIR, this alternative minimizes construction activities and costs, maintenance and staffing responsibilities and costs, disturbances associated with infrastructure construction, and still provides formal public access to locations throughout the study area consistent with public expectations.

5.10 REVISIONS TO CHAPTER 5.0, "COMPLIANCE, CONSULTATION, AND COORDINATION"

The text of Section 5.1.7, "Section 106 of the National Historic Preservation Act of 1966, as Amended (Public Law 89-665, 80 Stat. 915, 16 USC Section 470 et Seq. and 36 CFR 18, 60, 61, 63, 68, 79, 800)," on pages 5-5 and 5-6 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

5.10.1 SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT OF 1966, AS AMENDED (PUBLIC LAW 89-665, 80 STAT. 915, 16 USC SECTION 470 ET SEQ. AND 36 CFR 18, 60, 61, 63, 68, 79, 800)

The National Historic Preservation Act requires agencies to take into account the effects of their actions on properties listed in or eligible for listing in the National Register of Historical Places (NRHP). The Advisory Council on Historic Preservation has developed an implementing regulation (36 CFR 800) that allows agencies to develop agreements for consideration of these historic properties. Section 106 review includes the scoping, identification, assessment, and consultation called for in its implementing regulation (36 CFR 800) to determine impacts on properties listed in or eligible for listing in the NRHP. Consultation under Section 106 takes place during preparation of an EIS to determine whether historic resources would be adversely affected and, if so, whether measures could be implemented to reduce adverse effects to a less-than-significant level. Section 106 does not address impacts on all types of cultural resources or all cultural aspects of the environment; it deals only with impacts on properties listed in or eligible for listing in the NRHP.

Section 106 requires federal agencies to consider the effects of their actions, including those they fund or permit, on properties that may be eligible for listing or are listed in the NRHP. To determine whether an undertaking could affect NRHP-eligible properties, cultural resources (archaeological, historic, and architectural properties) must be inventoried and evaluated for listing in the NRHP. Although compliance with Section 106 is the responsibility of the lead Federal agency, a qualified representative of the lead agency can conduct the necessary steps. The Section 106 review process involves a four-step procedure:

- Establish the undertaking, develop a plan for public involvement, and identify other consulting parties.

- Identify historic properties by determining the scope of efforts, identifying cultural resources, and evaluating their eligibility for inclusion in the NRHP.
- Assess adverse effects by applying the criteria of adverse effect on historic properties (resources that are eligible for inclusion in the NRHP).
- Resolve adverse effects by consulting with the State Historic Preservation Officer (SHPO) and other consulting agencies, including the Advisory Council on Historic Preservation if necessary, to develop an agreement that addresses the treatment of historic properties.

In accordance with Section 106 requirements, the Washoe Tribe of Nevada and California was contacted regarding the proposed project, and surveys were conducted to identify cultural resources and evaluate their eligibility for inclusion in the NRHP.

Studies of the area of potential effect and consultation with the Washoe Tribe and the California SHPO determined that prehistoric and historic-era sites have been documented in the study area that could be affected by the proposed alternatives. The prehistoric resources, particularly CA-ELD-26, represent the intensive use of the lakeshore and the adjacent Upper Truckee River Marsh by the Washoe for fishing, the acquisition of numerous other lake and marsh resources, and general habitation. ~~Although no subsurface investigations were conducted at CA-ELD-26, surface indications and detailed ethnographic and historic-era accounts of Washoe occupation at this location suggest that the site may retain important scientific information. Consequently, CA-ELD-26 appears to be eligible for listing in the NRHP.~~ Subsurface testing in 2012 by AECOM archaeologists at CA-ELD-26/H has identified buried prehistoric cultural deposits that appear relatively substantial and intact, suggesting that the site has good physical integrity. Although a portion of the site has been affected by development, the portion in the project area appears to possess good to excellent integrity, indicating that the site retains important scientific information. Therefore, the prehistoric component of CA-ELD-26/H is recommended eligible for listing in the NRHP Criteria d. No other sites appear to be eligible. A representative of the Washoe Tribe (Daryl Cruz) has been involved in reviewing previous study findings, the results of archival and field research, and environmental commitments designed to reduce potential impacts on cultural resources to less-than-significant levels. Construction of some of the proposed recreational facilities, access/haul roads, and staging areas has the potential to affect portions of site CA-ELD-26 and/or artifacts and features possibly associated with this site that have not yet been documented on the landform (bluff) located above the marsh. As described in EC 2, the Conservancy would prepare and implement a cultural resources protection plan. As part of the plan, construction barriers would be installed around site CA-ELD-26, construction workers would be educated about site protection requirements, and a qualified cultural resource specialist would oversee initial grading activities in the vicinity of the bluff (Table 2-7). Furthermore, as part of the final design the bike path will completely avoid the bluff area and ELD-26/H. These measures have been proposed to address all potential adverse effects on the eligible resource.

~~In addition, Reclamation has initiated the Section 106 process for the proposed project and will complete consultation with the SHPO before the record of decision is issued. For these reasons, the project would comply with Section 106 of the National Historic Preservation Act.~~ In February 2013, following the cultural resources identification efforts conducted by EDAW (now AECOM), consultation with the Washoe Tribe, and commitments for project redesign to avoid a significant cultural resource, pursuant to 36 CFR § 800.5(b) Reclamation consulted with the SHPO on a finding of no adverse effect on historic properties for the Upper Truckee River and Marsh Restoration Project. This consultation covered all proposed action alternatives within the project area of potential effects. After addressing SHPO comments and concerns related to the results of the identification efforts, the SHPO concurred with Reclamation's finding of no adverse effect through correspondence dated December 19, 2014. The receipt of SHPO concurrence completed the NHPA Section 106 process and compliance requirement for the proposed federal undertaking. Further, concurrence with the finding of no adverse effect on historic properties under NHPA Section 106 affirms a NEPA finding of no significant impact to cultural resources for the Preferred Alternative.

The text of Section 5.2.3, "California Fish and Game Code Section 1602—Streambed Alterations," on page 5-11 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

5.10.2 CALIFORNIA FISH AND WILDLIFE CODE SECTION 1602—LAKE AND STREAMBED ALTERATIONS

Section 1602 of the California Fish and Wildlife Code requires that a lake and streambed alteration agreement (LSAA) be granted before any action is conducted that may divert or obstruct natural channel flow; substantially change the bed, channel, or bank of any river, stream, or lake designated by CDFW; ~~or~~ use any material from the streambed of a CDFW-designated waterway; or result in the disposal or deposition of debris, waste, or other material where is may pass into any river, stream, or lake. Implementing the proposed project would require a streambed alteration agreement from CDFW for work on the bed and banks of the Upper Truckee River and Trout Creek. The Conservancy would obtain the streambed alteration agreement from CDFG and implement all terms required for permit compliance. Therefore, the project would be in compliance with California Fish and Wildlife Code Section 1602.

The text of Section 5.2.6, "California State Lands Commission," on page 5-12 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

The California State Lands Commission (CSLC) was given authority and responsibility to manage and protect the important natural and cultural resources on certain public lands in the state and the public's rights to access these lands. The public lands under the CSLC's jurisdiction are of two distinct types: sovereign lands and school lands. Sovereign lands, which encompass approximately four million acres, include the beds of California's naturally navigable rivers, lakes (including Lake Tahoe), streams, and the underlying beds, as well as the state's tidal and submerged lands along the coastline, extending from the shoreline to three miles offshore. These lands are owned by the State and held in trust for the benefit of all people. The rights protected include navigation, commerce, and fisheries uses, as well as the right to fish, hunt, bathe, swim, boat, and engage in general recreation. The trust also encompasses the right to preserve lands in their natural state for ecological study, as open space, and as bird and marine habitat. These public rights are inalienable and cannot be extinguished, except to further public trust purposes generally. In making these choices, the government has the power to make equitable adjustments among conflicting trust uses.

~~A project cannot use these state lands unless an easement is first obtained from CSLC. The public-trust easement in navigable waterways allows lateral access between the high-water line and the low-water line; at Lake Tahoe, this is the area between the adjudicated ordinary low-water mark, at elevation 6,223 feet Lake Tahoe Datum, and the ordinary high-water mark, at elevation 6,228.75 feet Lake Tahoe Datum.~~

~~Because the bed of Lake Tahoe in the study area is within CSLC jurisdiction, use of the bed of Lake Tahoe would require an easement from the CSLC. The Conservancy has been coordinating with CSLC as a responsible agency under CEQA during preparation of this DEIR/DEIS/DEIS.~~

A project cannot use these State lands unless a lease or authorization is first obtained from CSLC. Because the bed of Lake Tahoe in the study area is within CSLC jurisdiction, use of the bed of Lake Tahoe below the low-water mark for the project would require a lease from the CSLC.

The public-trust easement in navigable waterways allows lateral access between the high-water line and the low-water line. At Lake Tahoe, this is the area between the adjudicated ordinary low-water mark, at elevation 6,223 feet Lake Tahoe Datum, and the ordinary high-water mark, at elevation 6,228.75 feet Lake Tahoe Datum. The CSLC has oversight authority over activities occurring in the public-trust easement to ensure that such activities and uses are consistent with the public trust. The Conservancy has been coordinating with CSLC as a responsible agency under CEQA during preparation of this EIR/EIS/EIS.

The text of Section 5.2.8, "Porter-Cologne Water Quality Control Act," on page 5-13 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

The proposed project is under the jurisdiction of the Lahontan RWQCB. The *Water Quality Control Plan for the Lahontan Region* (Basin Plan), adopted on March 31, 1995, and as amended, identifies the beneficial uses, water quality objectives, numerical standards, and waste discharge prohibitions for surface water and groundwater on the California side of the Lake Tahoe Basin (Lahontan RWQCB 1995:1-1). The Basin Plan incorporates water quality thresholds, programs, and regulations as developed and implemented by TRPA, along with state and federal regulations. It states specific water quality objectives for certain water bodies in the Lake Tahoe Hydrologic Unit. The objectives pertaining to water bodies in the study area are summarized in Table 3.9-2 of Section 3.9, "Geomorphology and Water Quality." To achieve those objectives, the Basin Plan identifies prohibitions against discharges and threatened discharges in 100-year floodplains or below the high-water rim of Lake Tahoe that apply to portions of the TRPA-defined shorezone. The Lahontan RWQCB has granted an "exemption to a waste discharge prohibition contained in the Water Quality Plan for the Lahontan Region" to specifically allow for potential turbidity elevation during the construction of stream restoration projects in the Lake Tahoe Basin. ~~If necessary, the Conservancy would apply for this exemption.~~ For this project, the Lahontan RWQCB would be required to take a separate discretionary action to grant a prohibit exemption. The Conservancy would apply for exemptions as part of the Lahontan RWQCB's permitting process.

5.11 REVISIONS TO CHAPTER 7, "REFERENCES CITED"

The following references are hereby added to the references for Section 3.4, "Biological Resources: Vegetation and Wildlife," as presented in Chapter 7, "References," on page 7-18 of the 2013 Draft EIR/EIS/EIS:

AECOM. 2014 (August 21). *2011 American Manna Grass Survey Results.* Memorandum submitted to Ivo Bergsohn, South Tahoe Public Utility District.

Ascent. *See* Ascent Environmental.

Ascent Environmental. 2015 (October 20). *Sierra Nevada Yellow-legged Frog Survey Results for the Upper Truckee Marsh*. Memorandum submitted to Stuart Roll, California Tahoe Conservancy.

Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken (eds.). 2012. *The Jepson Manual: Vascular Plants of California*, 2nd Edition. Berkeley, CA: University of California Press.

California Department of Fish and Wildlife. 2015 (October). Special Animals List. California Natural Diversity Database. Sacramento, CA. Available: https://www.dfg.ca.gov/wildlife/nongame/list.html. Accessed October 27, 2015.

The following reference is hereby added to the references for Section 3.8, "Hydrology and Flooding," as presented in Chapter 7, "References," on page 7-18 of the 2013 Draft EIR/EIS/EIS:

Federal Emergency Management Agency. 2012. *Flood Insurance Study, El Dorado County, California and Incorporated Areas*. Study No. 06017CV000B.

5.12 REVISIONS TO APPENDIX H, "WILDLIFE SPECIES AND ASSOCIATED PLANT COMMUNITIES AND AQUATIC ECOSYSTEMS AT THE UPPER TRUCKEE MARSH"

The text in the table in Appendix H, "Wildlife Species and Associated Plant Communities and Aquatic Ecosystems at the Upper Truckee Marsh," on page H-1 of the 2013 Draft EIR/EIS/EIS is hereby revised as follows:

Appendix H: Wildlife species and associated plant communities and aquatic ecosystems at the Upper Truckee Marsh. Species in bold have been observed at the site during recent surveys. Other species may potentially occur. List compiled from TRPA surveys from 1999-2002 (TRPA 2001, TRPA 2002), CTC surveys from 2002 (CTC 2002), and S. Fox surveys from 1994-1996 (Global 1997).

Scientific Name	Common Name	Community Associations[1]	Breeder?[2]
AMPHIBIANS			
Rana ~~muscosa~~sierrae	~~Mountain~~Sierra Nevada Yellow-legged Frog	WS, MM, ST, LG	

This page intentionally left blank.

6 LIST OF PREPARERS FOR THE FINAL EIR/EIS/EIS

6.1 CALIFORNIA TAHOE CONSERVANCY

Scott Carroll ..... Project Manager
Joe Pepi..... Reviewer
Stuart Roll..... Reviewer
Lisa O'Daly ..... Reviewer
Mark Sedlock ..... Reviewer
Sue Rae Irelan ..... Reviewer
Penny Stewart, P.E. ..... Reviewer
Michael Steeves..... Legal Review

6.2 RESD, CALIFORNIA DEPARTMENT OF GENERAL SERVICES

Stephanie Coleman..... Project Manager

6.3 TRPA

Shannon Friedman ..... Reviewer
John Marshall ..... Legal Review

6.4 U.S. BUREAU OF RECLAMATION

Rosemary A. Stefani, Ph.D, Lake Tahoe Program Manager..... NEPA Coordinator
Joanne Goodsell, Archaeologist ..... Reviewer
Doug Kleinsmith, Natural Resources Specialist..... Reviewer

6.5 AECOM

AECOM Contributors		
Name	Qualifications	Role
Danielle Hughes	M.S., Geology; B.S., Geology 11 years of experience	Project Manager/Geology and Soils/General
Jenifer King	B.S., Environmental Biology and Management 20 years of experience	Land Use/Public Services/Utilities and Service Systems/Other Required Sections
Julie Nichols	M.S., Journalism; B.A., Political Science 15 years of experience	Editor
Linda Howard	B.S., Conservation Biology and Environmental Science 11 years of experience	Noise
Brian Perry	Technical Illustrator Certification 25 years of experience	Graphics

6.6 CARDNO

Cardno Contributors		
Name	Qualifications	Role
Michael J. Rudd	B.S., Agricultural Engineering; Registered Professional Civil Engineer 20 years of experience	Project Manager/Utilities, Preferred Alternative Description
Virginia Mahacek	M.A., Physical Geography 27 years of experience	Hydrology and Flooding/Geomorphology and Water Quality/Cumulative
Katie Ross-Smith	PhD, Environmental Sciences 13 years of experience	Hydrology and Flooding/Geomorphology and Water Quality
Andrea Manha, P.E.	B.S. Environmental Engineering, Cum Laude Professional Engineer 7 years of experience	Hydrology and Flooding/2D Modeling
Chris Hogle	M.S., Biology (aquatic ecology); B.S., Wildlife, Fish, and Conservation Biology; 12 years of experience	Fisheries/Aquatic Ecology
Chris Donley	M.E., B.S., Civil Engineering Professional Engineer 12 years of experience	Preferred Alternative Plan Set
Anna Clare	M.A, Geography; B.S., Geographic Information Systems 12 years of experience	GIS (Geographic Information Systems)

7 REFERENCES

7.1 CHAPTER 1, "INTRODUCTION AND STATEMENT OF PURPOSE AND NEED"

California Water Boards and Nevada Division of Environmental Protection. 2007 (September). *Lake Tahoe TMDL Pollutant Reduction Opportunity Report*. Volume 1.01. Sacramento, CA, and Carson City, NV.

California Water Boards and NDEP. *See* California Water Boards and Nevada Division of Environmental Protection.

Coats, R. N., and C. R. Goldman. 2001. Patterns of Nitrogen Transport in Streams of the Tahoe Basin, California–Nevada. *Water Resources Research* 37(2):405–415.

Lahontan Regional Water Quality Control Board. 1995. *Water Quality Control Plan for the Lahontan Region*. South Lake Tahoe, CA.

Lahontan Regional Water Quality Control Board and Nevada Division of Environmental Protection. 2007. *Charting a Course to Clarity: The Lake Tahoe Total Maximum Daily Load (TMDL).* Available: http://www.waterboards.ca.gov/lahontan/water_issues/programs/tmdl/lake_tahoe/docs/cac_208_09_final.pdf. Accessed February 5, 2014.

Lahontan RWQCB and Simon 2006 Estimates of Fine-Sediment Loadings to Lake Tahoe from Channel and Watershed Sources. USDA-ARS National Sedimentation Laboratory Technical Report No. 52. Prepared for the University of California, Davis; the Nevada Division of Environmental Protection; and the Lahontan Regional Water Quality Control Board

Lahontan RWQCB. *See* Lahontan Regional Water Quality Control Board.

Lahontan RWQCB and NDEP. *See* Lahontan Regional Water Quality Control Board and Nevada Division of Environmental Protection.

Murphy, D. D., and C. M. Knopp (eds.). 2000. *Lake Tahoe Watershed Assessment*. General Technical Report PSW-GTR-175. Albany, CA: Pacific Southwest Research Station, U.S. Forest Service.

Reclamation. *See* U.S. Bureau of Reclamation.

Reuter, J. R., and W. W. Miller. 2000. Aquatic Resources, Water Quality and Limnology of Lake Tahoe and Its Upland Watershed. Cited in Murphy and Knopp 2000.

Rowe, T. G., D. K. Saleh, S. A. Watkins, and C. R. Kratzer. 2002. *Streamflow and Water-Quality Data for Selected Watersheds in the Lake Tahoe Basin, California and Nevada, through September 1998.* U.S. Geological Survey Water Resources Investigations Report 02-4030. Carson City, NV.

Simon, A., E. Langendoen, R. Bingner, R. Wells, A. Heins, N. Jokay, and L. Jaramillo. 2003. *Lake Tahoe Basin Framework Implementation Study: Sediment Loadings and Channel Erosion*. Prepared for the U.S. Army Corps of Engineers. Prepared by the USDA Agricultural Research Service, National Sedimentation Laboratory. Washington, DC.

UCD. *See* University of California, Davis.

University of California, Davis. 2014. *Tahoe: State of the Lake Report 2014*. Chapter 11, "Clarity." Tahoe Environmental Research Center, Incline Village, NV. Available: http://terc.ucdavis.edu/stateofthelake/. Accessed February 5, 2014.

U.S. Bureau of Reclamation. 2012. *NEPA Handbook*. Washington, DC. Available: http://www.usbr.gov/nepa. Accessed April 2015.

7.2 CHAPTER 2, "PROJECT DESCRIPTION"

California Department of Fish and Game. 2008 (January). *California Aquatic Species Management Plan.* Funded in part by the Ocean Protection Council, State Coastal Conservancy, and U.S. Fish and Wildlife Service. Sacramento, CA.

California Department of Public Health. 2012. *Best Management Practices for Mosquito Control on California State Properties.* Sacramento, CA.

California Tahoe Conservancy. 2014 (December). *Preliminary Staff Recommended Alternative Memorandum, Upper Truckee River and Marsh Restoration Project.* South Lake Tahoe, CA.

California Tahoe Conservancy and California Department of General Services, Real Estate Services Division. 2003. *Upper Truckee River and Wetland Restoration Project Processes and Functions of the Upper Truckee Marsh*. South Lake Tahoe and Sacramento, CA. Prepared by EDAW (now AECOM), Stateline, NV, and ENTRIX, Sacramento, CA.

———. 2006. *Upper Truckee River and Wetland Restoration Project Final Concept Plan Report*. South Lake Tahoe and Sacramento, CA. Prepared by EDAW (now AECOM), Stateline, NV, and ENTRIX, Sacramento, CA.

———. 2007. *Tahoe Yellow Cress Management Plan Upper Truckee River and Marsh Restoration Project*. South Lake Tahoe and West Sacramento, CA. Prepared by EDAW (now AECOM), South Lake Tahoe, CA.

CDFW. *See* California Department of Fish and Wildlife.

CDPH. *See* California Department of Public Health.

Conservancy. *See* California Tahoe Conservancy.

Conservancy and DGS. *See* California Tahoe Conservancy and California Department of General Services, Real Estate Services Division.

Simon, A., E. Langendoen, R. Bingner, R. Wells, A. Heins, N. Jokay, and L. Jaramillo. 2003. *Lake Tahoe Basin Framework Implementation Study: Sediment Loadings and Channel Erosion*. Prepared for the U.S. Army Corps of Engineers. Prepared by the USDA Agricultural Research Service, National Sedimentation Laboratory. Washington, DC.

7.3 CHAPTER 3, "MASTER RESPONSES"

California Department of Transportation. 1998 (October). *Traffic Noise Analysis Protocol: Technical Noise Supplement*. Sacramento, CA.

Caltrans. *See* California Department of Transportation.

California Tahoe Conservancy and California Department of General Services. 2003. *Upper Truckee River and Marsh Restoration Project Processes and Functions of the Upper Truckee Marsh, South Lake Tahoe, California.* Prepared by EDAW and ENTRIX.

———. 2005. *Upper Truckee River and Marsh Restoration Project Alternatives Evaluation Report.* Prepared by EDAW and ENTRIX.

Conservancy. *See* California Tahoe Conservancy.

Conservancy and DGS. *See* California Tahoe Conservancy and California Department of General Services, Real Estate Services Division.

Honeycutt, Jameson, Resources and Public Access Program. California Tahoe Conservancy. March 30, 2014 – e-mail communication with Andrea Manha with Cardno regarding Upper Truckee River Vegetation Classification.

7.4 CHAPTER 4, "COMMENTS AND INDIVIDUAL RESPONSES"

Conservancy and CDFW 2014. Meeting notes documenting the January 29, 2014 meeting and field visit to the Upper Truckee River and Marsh Restoration Project by Scott Carroll and Stuart Roll of the Conservancy and Patrick Moeszinger and ken Kundargi of CDFW.

Hughes, Danielle. Associate Hydrologist/Geologist. AECOM, South Lake Tahoe, CA. June 6, 2013—e-mail to Darrel Cruz, CRD/THPO, of the Washoe Tribe of Nevada and California regarding unidentified site within the study area and its possible association with site UTR-IF-1.

Ichinose, G. A., K. Satake, J. G. Anderson, R. A. Schweickert, and M. W. Lahren. 2000. The Potential Hazard from Tsunami and Seiche Waves Generated by Future Large Earthquakes within the Lake Tahoe Basin. *California-Nevada, Geophysical Research Letters* 27:1203–1206.

Lahontan Regional Water Quality Control Board. 1995. *Water Quality Control Plan for the Lahontan Region*. South Lake Tahoe, CA.

Lahontan RWQCB. *See* Lahontan Regional Water Quality Control Board.

NESC. *See* Nevada Earthquake Safety Council.

Nevada Earthquake Safety Council. 2007. *Probabilities of Earthquakes of Various Magnitudes Occurring within 50 Years within 50 Kilometers of Major Communities in Nevada*.

Sacramento Air Quality Management District. 2009 (December). *Guide to Air Quality Assessment in Sacramento County.* Sacramento, CA.

Seitz, G. 2014 (March). *Alfred E. Alquist Seismic Safety Commission, Seismic Hazard Investigation of Lake Tahoe Using New Remote Operated Submarine: Dive Test in Support of Antarctic Subglacial Research (WISSARD) Project.* CSSC Publication Number 2014-02. Menlo Park: California Geological Survey, Menlo Park. Available: http://www.seismic.ca.gov/pdf.files/Final_Lake_Tahoe_Report_3614_with_revision_RLA.pdf.

SMAQMD. *See* Sacramento Air Quality Management District.

Stubblefield, A. P., M. I. Escobar, and E. W. Larsen. 2006. Retention of Suspended Sediment and Phosphorus on a Freshwater Delta, South Lake Tahoe, California. *Wetlands Ecology and Management* 14(4):287–302.

U.S. Forest Service, Tahoe Regional Planning Agency, Nevada Tahoe Resource Team, Nevada Division of Forestry, Nevada Division of State Lands, Nevada Fire Safe Councils, California Department of Forestry and Fire Protection, California Tahoe Conservancy, California State Parks, North Tahoe Fire Protection District, North Lake Tahoe Fire Protection District, Tahoe-Douglas Fire Protection District, Lake Valley Fire Protection District, Meeks Bay Fire Protection District, South Lake Tahoe Fire Department, and Fallen Leaf Fire Department. 2014 (August). *Lake Tahoe Basin Multi-Jurisdictional Fuel Reduction and Wildfire Prevention Strategy*.

USFS et al. *See* U.S. Forest Service, Tahoe Regional Planning Agency, Nevada Tahoe Resource Team, Nevada Division of Forestry, Nevada Division of State Lands, Nevada Fire Safe Councils, California Department of Forestry and Fire Protection, California Tahoe Conservancy, California State Parks, North Tahoe Fire Protection District, North Lake Tahoe Fire Protection District, Tahoe-Douglas Fire Protection District, Lake Valley Fire Protection District, Meeks Bay Fire Protection District, South Lake Tahoe Fire Department, and Fallen Leaf Fire Department.

7.5 CHAPTER 5, "REVISIONS TO THE DRAFT EIR/EIS/EIS"

California Tahoe Conservancy and California Department of General Services. 2005. *Upper Truckee River and Marsh Restoration Project Alternatives Evaluation Report.* Prepared by EDAW and ENTRIX.

Conservancy and DGS. *See* California Tahoe Conservancy and California Department of General Services.

Federal Emergency Management Agency. 2012. *Flood Insurance Study, El Dorado County, California and Incorporated Areas.* Study No. 06017CV000B.

FEMA. *See* Federal Emergency Management Agency.

7.6 CHAPTER 6, "LIST OF PREPARERS"

No references cited.

8 INDEX

A

Al Tahoe subdivision 4-25, 4-242
Americans with Disabilities Act 2-4, 2-27, 4-203, 4-240
animal control 4-94, 4-95, 4-97, 4-105, 4-133, 4-137, 4-184, 4-202, 4-236, 4-245

B

backwater 2-12, 4-88
bald eagle (*Haliaeetus leucocephalus*) 4-31
Barton Beach 2-3, 2-4, 2-9, 2-14, 3-36, 4-16, 4-80, 4-162, 5-20
beach and dune 5-37
Best management practices ... 2-3, 2-4, 2-21, 2-22, 2-24, 2-25, 2-26, 2-30, 3-42, 3-44, 3-45, 4-15, 4-41, 4-43, 4-44, 4-52, 4-53, 4-89, 5-28, 5-29, 5-32
bicycle path 2-3, 2-4, 2-17, 4-245
boat take-out 4-53

C

California Code of Regulations 1-1, 1-9, 4-61
California Department of Fish and Game 5-39
California Department of Fish and Wildlife 7-2
California Department of Forestry and Fire Protection 5-26, 5-34, 5-36
California Department of Public Health 2-33, 7-2
California Department of Transportation 2-33, 3-43, 5-28, 5-32, 5-34, 5-36, 7-2
California Endangered Species Act 4-31
California Environmental Quality Act 1-1, 1-2, 1-3, 1-9, 1-10, 1-11, 1-13, 2-1, 2-34, 3-42, 4-19, 4-61, 4-63, 4-103, 4-228, 5-29, 5-35, 5-40
California Fish and Game Code 1-4, 4-31, 5-1, 5-39
California State Lands Commission 3-41, 4-15, 4-16, 4-19, 5-1, 5-40
California Tahoe Conservancy .1-1, 1-2, 1-3, 1-5, 1-8, 1-10, 1-11, 1-12, 1-14, 2-2, 2-5, 2-6, 2-9, 2-18, 2-21, 2-32, 2-33, 2-34, 2-34, 3-40, 3-41, 3-42, 3-44, 3-45, 4-16, 4-19, 4-24, 4-25, 4-26, 4-37, 4-41, 4-42, 4-43, 4-44, 4-45, 4-52, 4-53, 4-56, 4-67, 4-75, 4-89, 4-94, 4-95, 4-99, 4-102, 4-103, 4-155, 4-190, 4-218, 4-219, 4-228, 4-236, 4-238, 4-242, 4-245, 4-275, 5-1, 5-18, 5-20, 5-26, 5-27, 5-28, 5-29, 5-30, 5-32, 5-33, 5-34, 5-36, 5-39, 5-40, 6-1, 7-2, 7-3, 7-4
City of South Lake Tahoe 2-14, 2-18, 2-32, 2-33, 3-40, 3-41, 3-44, 3-45, 4-24, 4-53, 5-18, 5-26, 5-28, 5-29, 5-32, 5-33, 5-34, 5-35, 5-36
Clean Water Act 1-4, 1-11, 5-1, 5-2
Code of Federal Regulations 1-1, 1-9, 1-11, 2-1, 2-2, 3-42, 4-61, 4-64, 4-229, 5-17
construction schedule 4-219
Council of Environmental Quality 1-1, 4-64
Cove East Beach 1-10, 2-3, 2-4, 2-5, 2-7, 2-10, 2-16, 2-17, 3-44, 4-41, 4-43, 4-203, 4-240, 4-245, 5-18, 5-27
criteria air pollutants 4-62
cultural resources 1-4, 3-44, 4-56, 4-75, 4-162, 5-1, 5-2, 5-40

E

East Barton Beach 2-4, 2-25, 2-26
El Dorado County 1-4, 1-14, 2-18, 2-32, 2-33, 3-41, 3-43, 3-45, 4-62, 4-89, 4-228, 5-2, 5-27, 5-28, 5-29, 5-32, 5-33, 5-34, 5-35, 5-41, 7-4
El Dorado County Air Quality Management District 4-62
El Dorado County Vector Control District 2-32, 2-33, 4-89
environmental assessment 5-30, 5-33, 5-36
Environmental Improvement Program 1-2, 1-4, 1-5, 5-2, 5-32, 5-33, 5-36
environmental threshold carrying capacities 1-2, 1-5, 2-18, 4-61

erosion control 2-30, 3-40, 4-43, 4-44, 5-28, 5-29, 5-30, 5-32, 5-33, 5-34

F

Federal Emergency Management Agency 3-35, 5-17, 5-18, 5-21, 5-23, 7-4
Federal Highway Administration 5-36
finding of no significant impact 5-30, 5-33, 5-36
fishing platform 2-4, 2-10, 2-17, 2-27, 4-41, 4-203, 4-240
Flood Insurance Rate Map 5-18, 5-21, 5-23
flooding.. 2-15, 3-35, 3-36, 3-39, 4-25, 4-44, 4-45, 4-67, 4-70, 4-85, 4-102, 4-103, 4-160, 4-196, 4-202, 4-211, 4-213, 4-218, 4-219, 4-236, 4-237, 4-272, 4-275, 5-17, 5-32, 5-33, 5-41, 6-2

G

geomorphology 4-16, 4-41, 4-54, 4-63, 4-88, 4-108, 4-219, 4-272, 5-20, 5-40, 6-2
grade control 2-11, 2-12, 2-22, 2-25, 2-26, 2-27, 4-137, 4-236, 5-30
groundwater 2-7, 2-21, 2-22, 2-31, 2-32, 3-41, 4-26, 4-45, 4-72, 4-272, 5-27, 5-40

H

hazardous materials 4-41
Highland Woods 1-5, 2-4, 2-6, 2-24, 4-25, *4-41*, 4-43, 5-18
historical resources 1-14, 4-75
Hydraulic Engineering Center's River Analysis System 5-18

I

Initial Study 5-30, 5-33, 5-36

J

Jeffrey pine (*Pinus jeffreyi*) 4-25

K

kiosk 2-4, 2-10, 2-17, 2-27, 4-89, 4-255

L

lagoon 2-3, 2-4, 2-5, 2-7, 2-10, 2-11, 2-12, 2-14, 2-17, 2-26, 4-15, 4-31, 4-41, 4-43, 4-88, 4-137, 4-236, 4-240, 4-272, 5-37
Lahontan Regional Water Quality Control Board 1-9, 4-41, 4-42, 4-52, 4-53, 4-274, 5-32, 5-40, 7-1, 7-3
Lake Tahoe.. 1-2, 1-4, 1-5, 1-9, 1-10, 1-12, 1-14, 2-2, 2-3, 2-5, 2-6, 2-7, 2-10, 2-14, 2-17, 2-18, 2-33, 3-40, 3-41, 3-44, 3-45, 4-1, 4-15, 4-19, 4-24, 4-31, *4-41*, 4-43, 4-54, 4-72, 4-88, 4-94, 4-228, 4-236, 4-237, 4-245, 4-271, 4-272, 4-274, 5-2, 5-26, 5-27, 5-28, 5-29, 5-30, 5-31, 5-32, 5-33, 5-34, 5-35, 5-36, 5-40, 7-1, 7-2, 7-3, 7-4
Lake Tahoe Basin Management Unit 5-35, 5-36
law enforcement 3-45
Letter of Map Revision 5-18
lodgepole pine (*Pinus contorta* var. *murrayana*) 4-25, 4-230, 5-29, 5-31
Long-eared owl (*Asio otus*) 4-133
Lower West Side 1-5, 1-14, 2-17, 2-24, 2-25, 2-26, 3-36, 5-18, 5-20
Lower West Side Restoration Area 2-13, 2-17, 2-25, 5-18

M

migratory birds 4-218
monitoring ..... ii, 1-8, 1-11, 2-18, 2-21, 2-30, 2-31, 2-33, 3-40, 3-45, 4-16, 4-19, 4-37, 4-42, 4-52, 4-56, 4-89, 4-218, 4-236, 5-25

N

National Environmental Policy Act 1-1, 1-2, 1-3, 1-9, 1-11, 1-13, 2-1, 2-2, 2-34, 3-39, 3-42, 4-61, 4-64, 4-103, 4-228, 5-29, 6-1, 7-2
National Geodetic Vertical Datum 5-18
Native Americans 5-2
Nevada Division of Environmental Protection 7-1
North American Vertical Datum 5-18

O

observation area 2-3, 2-4, 2-10, 2-17, 2-27, 4-41, 4-88
oxides of nitrogen 2-34, 4-62

P

pedestrian trail 2-4, 2-16, 2-17, 4-203, 4-240
plan area statement 4-24
Porter-Cologne Water Quality Control Act 5-40
Public Outreach Plan 2-33, 2-34

R

reactive organic gas 2-34, 4-62
Regional Plan for the Lake Tahoe Basin *1-1*, 1-2, 1-15, 2-1, 2-34, 5-35, 5-36, 7-4
regional water quality control board 1-9, 2-14, 2-34, 4-41, 5-36, 5-40
respirable particulate matter 2-34, 4-62
runoff 1-4, 1-9, 2-14, 2-22, 2-30, 2-31, 2-33, 4-41, 4-43, 4-44, 4-45, 4-72, 4-275, 5-2, 5-28, 5-29, 5-32

S

Sailing Lagoon 2-3, 2-4, 2-5, 2-7, 2-14, 2-24, 2-25, 2-26, 2-34, 3-36, *4-41*, 4-43, 4-272, 5-18
Section 106 ..... 1-4, 5-1
Sky Meadows 1-5, 3-42, 4-2, 4-67, 5-18, 5-20
South Tahoe Public Utility District 4-70
State Park 5-31, 5-36
State Recreation Area 5-26, 5-31, 5-36
Stream Environment Zone 3-40, 4-17, 4-41, 4-42, 4-43, 4-44, 4-45, 4-52, 4-271, 5-28, 5-31, 5-36
streambed alteration agreement 1-4, 5-1, 5-39

T

Tahoe Island 1-5, 3-42, 4-25, 4-113, 4-118, 4-123, 4-126, 4-131, 4-147, 4-150, 4-153, 4-158, 4-165, 4-171, 4-175, 4-178, 4-182, 4-194, 4-196, 4-206, 4-228, 4-229, 4-248, 4-258, 5-18
Tahoe Keys. 1-5, 1-9, 1-15, 2-3, 2-4, 2-5, 2-7, 2-10, 2-14, 2-16, 2-17, 2-25, 2-26, 2-33, 2-34, 3-40, 3-42, 3-43, *4-41*, 4-43, 4-45, 4-53, 4-102, 4-228, 4-237, 4-255, 5-18, 5-26, 5-27
Tahoe Keys development 1-5, 1-9, 1-15, 2-3, 2-4, 2-5, 2-7, 2-10, 2-14, 2-16, 2-17, 2-25, 2-26, 2-33, 2-34, 3-40, 3-42, 3-43, *4-41*, 4-43, 4-45, 4-53, 4-102, 4-228, 4-237, 4-255, 5-18, 5-26, 5-27

Tahoe Keys Marina 1-5, 2-3, 2-5, 2-14, 2-16, 2-17, 2-25, 2-26, 2-34, *4-41*, 4-43, 5-18, 5-26, 5-27
Tahoe Keys Property Owners Association 2-3, 2-4, 2-6, 2-13, 2-24, 2-25, 2-26, 3-36, 4-45, 4-128, 4-168, 4-253, 4-273
Tahoe Keys Property Owners Association Corporation Yard 2-3, 2-4, 2-6, 2-13, 2-24, 2-25, 2-26, 3-36, 4-45, 4-168, 4-253
Tahoe Regional Planning Agency 1-1, 1-2, 1-3, 1-5, 1-9, 1-10, 1-11, 1-12, 1-13, 2-1, 2-2, 2-3, 2-16, 2-18, 2-21, 2-34, 3-39, 3-40, 3-43, 3-44, 4-4, 4-42, 4-53, 4-61, 4-62, 4-64, 4-102, 4-103, 4-228, 4-274, 5-28, 5-29, 5-31, 5-32, 5-33, 5-35, 5-36, 5-40, 6-1
Tahoe yellow cress (*Rorippa subumbellata*) 2-18, 2-21
total maximum daily load 7-1
Trout Creek 1-5, 1-10, 2-3, 2-11, 2-14, 2-22, 2-25, 2-30, *4-41*, 4-43, 4-45, 4-53, 4-54, 4-70, 4-89, 4-108, 4-211, 4-272, 4-274, 5-18, 5-20, 5-27, 5-28, 5-29, 5-31, 5-32, 5-33, 5-39
TRPA Code of Ordinances 1-1, 1-2, 1-11, 2-2, 2-21, 4-62

U

U.S. Army Corps of Engineers 3-40, 5-18
U.S. Department of the Interior, Bureau of Reclamation 1-1, 1-2, 1-3, 1-4, 1-5, 1-10, 1-11, 1-12, 1-15, 2-2, 4-103, 5-1, 5-27, 5-28, 5-29, 5-31, 5-36, 6-1, 7-1, 7-2
U.S. Endangered Species Act 1-3
U.S. Fish and Wildlife Service 2-31
U.S. Forest Service 2-31, 4-25, 5-28, 5-29, 5-30, 5-31, 5-32, 5-33, 5-34, 5-35, 5-36, 7-4
U.S. Geological Survey 5-18
U.S. Highway 50 ..... 2-4, 2-7, 2-9, 2-10, 2-13, 2-22, 2-25, 2-26, 5-18, 5-20, 5-26, 5-28, 5-29, 5-30, 5-32, 5-33, 5-34, 5-35, 5-36
Upper Truckee River and Marsh Restoration Project .. 1-1, 1-2, 1-3, 1-4, 1-5, 1-8, 1-9, 1-10, 1-11, 1-12, 1-13, 2-1, 2-2, 2-3, 2-5, 2-11, 2-12, 2-18, 2-21, 2-26, 2-27, 2-30, 2-31, 2-32, 2-33, 2-33, 2-34, 3-35, 3-39, 3-40, 3-41, 3-42, 3-43, 3-44, 3-45, 3-46, 4-1, 4-15, 4-16, 4-19, 4-25, 4-31, 4-37, 4-41, 4-42, 4-43, 4-44, 4-52, 4-53, 4-61, 4-62, 4-63, 4-64, 4-67, 4-70, 4-75, 4-80, 4-85, 4-89, 4-102, 4-103, 4-108, 4-133, 4-137, 4-140, 4-144, 4-160, 4-168, 4-175, 4-182, 4-184, 4-189, 4-190, 4-196, 4-202, 4-211, 4-213, 4-219, 4-228, 4-229, 4-230, 4-236, 4-237, 4-267, 4-271, 4-272, 4-275, 5-20, 5-25, 5-26, 5-27, 5-28, 5-29, 5-30, 5-31, 5-32, 5-33, 5-34, 5-35, 5-39, 5-40

V

vibration 3-42

W

water quality... 1-2, 1-3, 1-4, 1-9, 1-10, 1-11, 1-14, 1-15, 2-5, 2-6, 2-7, 2-14, 2-30, 2-34, 3-40, 3-44, 4-2, 4-15, 4-16, 4-41, 4-43, 4-44, 4-52, 4-53, 4-54, 4-63, 4-88, 4-108, 4-219, 4-230, 4-245, 4-265, 4-271, 4-272, 5-2, 5-20, 5-25, 5-26, 5-27, 5-28, 5-30, 5-32, 5-33, 5-36, 5-37, 5-40, 6-2, 7-1, 7-3
Water Quality Control Plan for the Lahontan Region *4-41*, 4-43, 4-44, 5-40
waterfowl 2-17, 3-45, 4-133
Willow flycatcher (*Empidonax traillii brewsteri*, *E. t. adastus*, and *E. t. extimus*) 4-31, 4-133

Y

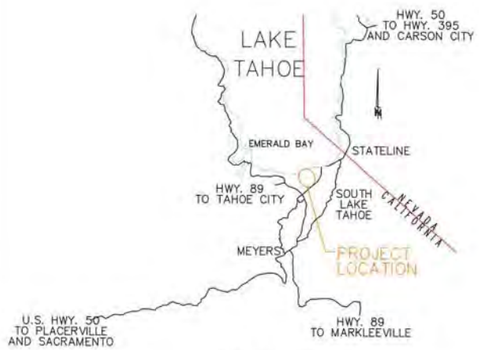
Yellow warbler (*Dendroica petechia*) 4-133

APPENDIX A

Preferred Alternative Schematics

SCHEMATIC DESIGN PLANS
& DETAILS
NOT FOR CONSTRUCTION

CALIFORNIA DEPARTMENT OF GENERAL SERVICES
AND
CALIFORNIA TAHOE CONSERVANCY
UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT
PREFERRED ALTERNATIVE



VICINITY MAP

N.T.S

LOCATION MAP

SOUTH LAKE TAHOE, EL DORADO COUNTY, CA
SCALE 1" = 1000'

SHEET INDEX

SHEET NUMBER	SHEET TITLE	PAGE NUMBER
1	TITLE SHEET	1
2	INDEX SHEET	2
3	CONSTRUCTION PHASING	3
4	PLAN VIEW (PREFERRED ALTERNATIVE)	4
5	UPSTREAM REACH PLAN	5
6	MID-MARSH PLAN SHEET A	6
7	MID-MARSH PLAN SHEET B	7
8	DOWNSTREAM REACH PLAN	8
9	DOWNSTREAM REACH CROSS SECTIONS	9
10	DOWNSTREAM BARTON BEACH	10
11	DETAIL SHEET 1	11
12	DETAIL SHEET 2	12
13	DETAIL SHEET 3	13
14	DETAIL SHEET 4	14
15	DETAIL SHEET 5	15
16	DETAIL SHEET 6	16
17	DETAIL SHEET 7	17
18	DETAIL SHEET 8	18
19	STORAGE STAGING AND ACCESS PLAN	19
20	BIKE TRAIL	20
21	VIEW POINT	21
22	OBSERVATION AREA TYPE 1	22
23	FISHING PLATFORM	23
24	KIOSK	24
25	REVEGETATION SECTION & PLANT LIST	25

LAKE TAHOE ENVIRONMENTAL IMPROVEMENT PROGRAM

DGS

CALIFORNIA TAHOE CONSERVANCY

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. # 560

AECOM
City Hall Tower, 16th Floor One East First St.
Reno, NV 89501
Tel: 775-227-9565

Cardno
Shaping the Future
295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

TITLE SHEET

i

REVISIONS

#	description	date

scale:	AS SHOWN
job no.:	00110066.04
drawn by:	MC
checked by:	CM

sheet no.: i

sheet 1 of 25

date: 11/2015

GENERAL NOTES

1. ALL IMPROVEMENTS SHALL BE ACCOMPLISHED UNDER THE APPROVAL, INSPECTION, AND TO THE SATISFACTION OF THE CALIFORNIA DEPARTMENT OF GENERAL SERVICES (DGS). IMPROVEMENT CONSTRUCTION SHALL COMPLY WITH THESE PLANS AND THE 2010 CALTRANS STANDARD PLANS FOR CONSTRUCTION OF LOCAL STREETS AND ROADS, UNLESS NOTED OTHERWISE. ALL REFERENCES TO THE "STANDARD SPECIFICATIONS" SHALL MEAN THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION (CALTRANS) STANDARD SPECIFICATIONS FOR CONSTRUCTION OF LOCAL STREETS AND ROADS, 2010, INCLUDING THE AMENDMENTS TO THE 2010 STANDARD SPECIFICATIONS. CONSTRUCTION NOT SPECIFIED ON THESE PLANS OR IN SPECIFIC CITY OF SOUTH LAKE TAHOE (CSLT) ORDINANCES SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR IS OBLIGATED TO BE FAMILIAR WITH APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS NOT DISCUSSED IN THE GENERAL NOTES. THE CONTRACT SPECIAL PROVISIONS SHALL SUPERSEDE THOSE OF THE STANDARD SPECIFICATIONS WHERE DISCREPANCIES OCCUR.

2. CONSTRUCTION HOURS SHALL BE WEEKDAYS BETWEEN 8:00 A.M. AND 6:30 P.M. UNLESS PRIOR APPROVAL IS RECEIVED FROM THE DGS.

3. THE LOCATIONS AND EXTENT OF EXISTING UNDERGROUND UTILITIES IN THE WORK AREA AS SHOWN ARE APPROXIMATE AND ARE NOT NECESSARILY COMPLETE. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE EXISTING UTILITIES BASED UPON AVAILABLE RECORDS. THE CONTRACTOR SHALL DETERMINE THE TYPE, LOCATION, SIZE, AND/OR DEPTH OF THE EXISTING UTILITIES WITHIN THE WORK AREA BEFORE COMMENCING WORK. THE CONTRACTOR OR ANY SUBCONTRACTOR FOR THIS CONTRACT SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT AT (800) 227-2600 AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION. SEE SPECIAL PROVISIONS FOR CONTRACTOR NOTIFICATION REQUIREMENTS. THE CONTRACTOR SHALL ASSUME COMPLETE RESPONSIBILITY FOR DAMAGED UTILITIES.

4. UNLESS NOTED OTHERWISE ON THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SURVEY MONUMENTS AND OTHER SURVEY MARKERS DURING CONSTRUCTION.

5. THE CONTRACTOR SHALL PROVIDE, PLACE, AND MAINTAIN ALL LIGHTS, SIGNS, BARRICADES, FLAG PERSONS, PILOT CAR, OR OTHER DEVICES NECESSARY TO CONTROL TRAFFIC THROUGH THE CONSTRUCTION AREA AND FOR PUBLIC SAFETY IN ACCORDANCE WITH THESE PLANS, THE STANDARD SPECIFICATIONS, FEDERAL HIGHWAY ADMINISTRATION (FHWA) MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) 2009 EDITION AND MUTCD 2012 CALIFORNIA SUPPLEMENT.

6. THE CONTRACTOR AGREES TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, AND FURTHER AGREES THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS IN ACCORDANCE WITH THE PROVISIONS OUTLINED BY THE PROJECT CONTRACT AND STANDARD SPECIFICATIONS.

7. THERE SHALL BE NO GRADING OR LAND DISTURBANCE PERFORMED WITH RESPECT TO THE PROJECT BETWEEN OCTOBER 15 AND MAY 1 UNLESS A GRADING EXEMPTION IS OBTAINED FROM THE TAHOE REGIONAL PLANNING AGENCY (TRPA). APPROVALS FOR GRADING BETWEEN OCTOBER 15 AND MAY 1 MUST ALSO BE OBTAINED FROM THE REGIONAL WATER QUALITY CONTROL BOARD, LAHONTAN. IF REQUIRED, THE COUNTY SHALL OBTAIN THESE APPROVALS.

8. THE CONTRACTOR SHALL MAINTAIN A SET OF PLANS ON THE JOB SHOWING "AS-CONSTRUCTED" CHANGES MADE TO DATE. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL SUPPLY TO THE AGENCIES A SET OF PLANS, MARKED UP TO THE SATISFACTION OF THE AGENCIES, REFLECTING THE AS-CONSTRUCTED MODIFICATIONS.

9. ALL CONTROL STATIONING AND DATA DIMENSIONING ARE REFERENCED TO THE CENTERLINE OF THE FACILITY SHOWN UNLESS OTHERWISE NOTED.

10. AT NO TIME SHALL THE CONTRACTOR UNDERTAKE TO CLOSE OFF ANY EXISTING UTILITY LINES OR OPEN VALVES OR TAKE ANY OTHER ACTION WHICH WOULD AFFECT THE OPERATION OF EXISTING WATER OR SEWER SYSTEMS WITHOUT PRIOR APPROVAL FROM THE SOUTH TAHOE PUBLIC UTILITY DISTRICT (STPUD). APPROVAL SHALL BE REQUESTED AT LEAST 48 HOURS IN ADVANCE OF THE TIME THAT THE INTERRUPTION OF THE EXISTING SYSTEM IS REQUIRED. ANY INTERRUPTION OF SERVICE TO ACTIVE WATER OR SEWER SERVICES, INCLUDING FIRE HYDRANTS, WHETHER INTENTIONAL OR NOT, MUST BE KEPT TO A MINIMUM TIME PERIOD. IF SERVICE TO BUILDINGS IS TO BE OFF FOR MORE THAN FOUR HOURS, THE CONTRACTOR MUST ADVISE STPUD.

11. THE CONTRACTOR SHALL BE REQUIRED TO PERFORM PREVENTIVE DUST CONTROL MEASURES TO ENSURE THAT DUST RESULTING FROM THE CONTRACTOR'S PERFORMANCE OF THE WORK IS CONTROLLED IN CONFORMANCE WITH THE SPECIAL PROVISIONS, THE PROVISIONS THE STANDARD SPECIFICATIONS, COUNTY, AND LOCAL ORDINANCES. SEE SPECIAL PROVISIONS REGARDING SWEEPING, DUST CONTROL AND TRACKING REQUIREMENTS.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING ALL TEMPORARY EROSION CONTROL MEASURES. THE EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE TRPA "HANDBOOK OF BEST MANAGEMENT PRACTICES" AND THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE DOT SHALL CONTACT TRPA PRIOR TO THE COMMENCEMENT OF WORK FOR A PRE-GRADING INSPECTION OF THE INSTALLED TEMPORARY EROSION CONTROL FACILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND PERFORMANCE OF THE TEMPORARY EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF THE PROJECT. SEE SPECIAL PROVISIONS REGARDING TEMPORARY EROSION CONTROL FACILITY REMOVAL.

13. CONSTRUCTION LIMITS SHOWN ON THE PLANS DELINEATE BOUNDARIES FOR THE CONTRACTOR'S OPERATIONS OUTSIDE THE COUNTY STREET RIGHT-OF-WAY. CONSTRUCTION LIMIT FENCING SHALL BE ERECTED ALONG THESE BOUNDARIES PRIOR TO COMMENCEMENT OF CONSTRUCTION. WITHIN THE CONSTRUCTION LIMITS, EXISTING VEGETATION SHALL BE PROTECTED TO THE EXTENT FEASIBLE. ALL EXISTING TREES SHALL BE PROTECTED UNLESS SHOWN ON THE PLANS TO BE REMOVED. SEE SPECIAL PROVISIONS REGARDING PAYMENT FOR TREE REMOVAL.

14. ALL REVEGETATION SHOWN ON THE PLANS IS TO BE COMPLETED BY OTHERS, UNLESS NOTED OTHERWISE.

15. THE CONTRACTOR SHALL USE ONLY DESIGNATED SPECIFIC SITES FOR STORAGE OF EQUIPMENT AND MATERIALS AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY OF ALL EQUIPMENT AND MATERIALS.

16. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND HIS SUBCONTRACTOR(S) TO EXAMINE THE PROJECT SITE PRIOR TO THE OPENING OF BID PROPOSALS. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED, SUCH AS THE NATURE AND LOCATION OF THE WORK AND THE GENERAL AND LOCAL CONDITIONS, PARTICULARLY THOSE AFFECTING THE AVAILABILITY OF TRANSPORTATION, THE DISPOSAL, HANDLING, AND STORAGE OF MATERIALS, AVAILABILITY OF LABOR, WATER, ELECTRICITY, ROADS, THE UNCERTAINTIES OF WEATHER, THE CONDITIONS OF THE GROUND, SURFACE AND SUBSURFACE MATERIALS, THE EQUIPMENT AND FACILITIES NEEDED PRIMARILY FOR AND DURING THE PERFORMANCE OF THE WORK, AND THE COSTS THEREOF. ANY FAILURE BY THE CONTRACTOR AND SUBCONTRACTOR(S) TO ACQUAINT HIMSELF WITH ALL THE AVAILABLE INFORMATION WILL NOT RELIEVE HIM FROM RESPONSIBILITY FOR PROPERLY ESTIMATING THE DIFFICULTY AND COST OF SUCCESSFULLY PERFORMING THE WORK.

17. ELEVATIONS SHOWN ON THE PLANS FOR PIPE INVERTS, TOPS OF GRATES, RIMS, CURBS, ETC., ARE BASED UPON THE TOPOGRAPHIC INFORMATION SHOWN ON THE PLANS. THE CONTRACTOR SHALL VERIFY ALL NECESSARY SURFACE ELEVATIONS IN THE FIELD AND NOTIFY THE DGS OF ANY DISCREPANCIES, WHICH MIGHT AFFECT PROPER OPERATION OF THE NEW FACILITIES BEFORE BREAKING GROUND AND PRIOR TO FACILITY INSTALLATION. THE DOT SHALL BE CONTACTED IN THE EVENT ELEVATIONS ARE INCORRECT SO THAT THE PROPER ADJUSTMENTS CAN BE MADE PRIOR TO THE INSTALLATION OF THE FACILITIES, AS SET FORTH IN THE SPECIAL PROVISIONS.

18. THE CONTRACTOR SHALL OBTAIN AT HIS OWN EXPENSE ALL PERMITS, LICENSES, INSURANCE POLICIES, ETC., NOT ALREADY OBTAINED BY DGS, AS MAY BE NECESSARY TO COMPLY WITH STATE AND LOCAL LAWS ASSOCIATED WITH THE PERFORMANCE OF THE WORK. SEE SPECIAL PROVISIONS.

19. THE CONTRACTOR IS RESPONSIBLE TO REVIEW THE CONTRACT DOCUMENTS FOR ALL SUBMITTALS REQUIRED FOR DGS REVIEW AND ACCEPTANCE.

20. THE DGS WILL FURNISH THE CONSTRUCTION STAKING TO THE CONTRACTOR AS SET FORTH IN THE SPECIAL PROVISIONS.

21. CONTRACTOR SHALL NOTE THAT THE PLANS SHOW BOTH HORIZONTAL AND SLOPE (ACTUAL) LENGTHS FOR PIPE. SEE SPECIAL PROVISIONS FOR THE MAXIMUM ALLOWABLE DEFLECTION ANGLE AT EACH PIPE JOINT.

22. THE CONSULTANT TEAM AND OVERSEEING ENGINEER RESPONSIBLE FOR PREPARATION OF THESE PLANS AND SPECIFICATIONS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE CONSULTANT TEAM AND OVERSEEING ENGINEER RESPONSIBLE FOR PREPARATION OF THESE PLANS.

23. NO TREES OR WETLAND VEGETATION SHALL BE REMOVED UNLESS THEY ARE SHOWN AND NOTED TO BE REMOVED ON THE PLANS, OR AS DIRECTLY SPECIFIED ON-SITE BY THE PROJECT MANAGEMENT STAFF. ALL TREES CONFLICTING WITH GRADING SHALL BE TRIMMED. NO GRADING SHALL TAKE PLACE WITHIN THE DRIP LINE OF TREES NOT TO BE REMOVED UNLESS OTHERWISE APPROVED.

24. IF, DURING CONSTRUCTION, ARCHAEOLOGICAL REMAINS ARE ENCOUNTERED, CONSTRUCTION IN THE VICINITY SHALL BE HALTED, AND THE STATE OFFICE OF HISTORIC PRESERVATION AND A QUALIFIED ARCHEOLOGIST SHALL BE NOTIFIED IMMEDIATELY.

25. PERMIT CONDITIONS MAY CONTAIN SPECIFIC REQUIREMENTS FOR THE CONTROL OF OFF-SITE TURBIDITY FROM PROJECT OPERATIONS. TURBIDITY WILL BE MONITORED ON A FREQUENT BASIS BY THE PROJECT MANAGEMENT AND INSPECTION STAFF ON-SITE. TURBIDITY AMOUNTS IN EXCESS OF THE PERMITTED AMOUNT AND/OR DURATIONS WILL CAUSE WORK TO BE STOPPED UNTIL IMPROVED PRACTICES ARE IN EFFECT AND THE PROBLEMS CONTROLLED. THE CONTRACTOR IS COMPLETELY RESPONSIBLE FOR ANY PROJECT DELAYS THAT OCCUR BY NATURE OF THIS FAILURE TO ADEQUATELY CONTAIN SEDIMENT ON-SITE.

26. THE NEW CHANNEL ALIGNMENTS FOR THE PREFERRED ALTERNATIVE ARE DEPICTED ON THESE PLANS ARE APPROXIMATE AND ARE NOT INTENDED TO REPRESENT THE CONSTRUCTED ALIGNMENT.

ABBREVIATIONS

A	ASPEN	FL	FLOWLINE
ABAND	ABANDONED	FS	FINISH SURFACE
AC	ASPHALT CONCRETE	G	GAS
APN	ASSESSOR'S PARCEL NUMBER	IE	INVERT ELEVATION
BLVD	BOULEVARD	INST	INSTALL
CA	CALIFORNIA	IB	ISOLATION BARRIER
CALC'S	CALCULATIONS	LF	LINEAR FEET
CF	CUBIC FEET OR CURB FACE	LT	LEFT
CIR	CIRCLE	LT BLVD	LAKE TAHOE BLVD
℄	CENTERLINE	MISC	MISCELLANEOUS
CLF	CONSTRUCTION LIMIT FENCE	N	NORTH
CLR	CLEAR	NTS	NOT TO SCALE
CO.	COUNTY	OH	OVERHEAD
CONC	CONCRETE	P	PINE
CONST	CONSTRUCT	PL	PROPERTY LINE
CMP	CORRUGATED METAL PIPE	PP	POWER/UTILITY POLE
CT	CALTRANS OR COURT	PROP	PROPOSED
CTC	CALIFORNIA TAHOE CONSERVANCY	PUE	PUBLIC UTILITY EASEMENT
CY	CUBIC YARD	RD	ROAD
DET	DETAIL	REF	REFERENCE
DGS	DEPARTMENT OF GENERAL SERVICES	ROW	RIGHT-OF-WAY
DI	DRAINAGE INLET	RSP	ROCK SLOPE PROTECTION
DIA OR Ø	DIAMETER	RT	RIGHT
DISS	DISSIPATER	S	SOUTH OR SANITARY SEWER
DR	DRIVE	SD	STORM DRAIN
D/W	DRIVEWAY	SDMH	STORM DRAIN MANHOLE
E	EAST	SF	SQUARE FEET
EA	EACH	SHT	SHEET
EG	EXISTING GRADE	SS	SANITARY SEWER
ELEV	ELEVATION	ST	SEDIMENT TRAP OR STREET
ELEC	ELECTRIC	STA	STATION
EP	EDGE OF PAVEMENT	STPUD	SOUTH TAHOE PUBLIC UTILITY DISTRICT
EX	EXISTING	TRPA	TAHOE REGIONAL PLANNING AGENCY
F	FIR	TYP	TYPICAL
FES	FLARED END SECTION	USFS	UNITED STATES FOREST SERVICE
FF	FILTER FENCE	W	WEST OR WATER
FG	FINISHED GRADE	W/	WITH
FH	FIRE HYDRANT	W/O	WITHOUT

UTILITIES

CABLE TELEVISION	CHARTER COMMUNICATIONS, (775) 850-1290
NATURAL GAS	SOUTHWEST GAS CO., (775) 887-2872
ELECTRIC	LIBERTY ENERGY, (530) 541-2040
SEWER & WATER	SOUTH TAHOE PUD, (530) 543-5247
TELEPHONE	AT&T, (916) 453-6136
STORM DRAIN	CITY OF SOUTH LAKE TAHOE, DPW (530) 542-6030

HORIZONTAL AND VERTICAL CONTROL/PROJECTION

VERTICAL CONTROL IS NAVD 88;
HORIZONTAL CONTROL IS CALIFORNIA STATE PLANE, ZONE 2, NAD 83 (FEET);

LEGEND

*NOTE: LEGEND PROVIDED ON SHEET SUPERCEDES THIS LEGEND

EXISTING	PROPOSED
MAJOR CONTOUR	FOOT TRAIL
MINOR CONTOUR	PIPE (MATERIAL AS NOTED)
WATERS EDGE	FILL
STRUCTURE BOUNDARY	CUT
PROPERTY LINE	BOULDER TOE PROTECTION
FENCE LINE	NEW FLOODPLAIN
FOOT TRAIL	SCOUR POOL
WATER LINE	POINT BAR
SEWER LINE	ROCK DISSIPATER
GAS LINE	RESTORED DUNES
STORM DRAIN	STORMWATER TREATMENT AREA
ELECTRIC LINE	LILY LAGOON RESTORATION AREA
ORDINARY HIGH WATER LINE 6229' EXTENDING DOWN TO AN ELEVATION OF 6223' (BASED ON THE LAKE TAHOE DATUM)	MAJOR CONTOUR
	MINOR CONTOUR
	TAHOE YELLOW CRESS PROTECTED AREA
AC PAVEMENT	BOARDWALK
WOODEN FOOT BRIDGE	BRIDGE
UTILITY EASEMENT	GRADE CONTROL STRUCTURE
POWER/UTILITY POLE	
UTILITY POLE & GUY ANCHOR	NEW CHANNEL ALIGNMENT
FIRE HYDRANT	
DRAINAGE INLET	RE-VEGETATION
LIGHT POLE	
MANHOLE	FISHING ACCESS
UTILITY BOX	
SIGN	ADA ACCESSIBLE
TREE, DIAMETER AND TYPE	
0 • EXISTING CHANNEL ALIGNMENT STATION NUMBER AND MARKER	OBSERVATION AREA
	SELF-SERVICE VISITORS CENTER
	VIEWPOINT
	3 / - DETAIL REFERENCE NUMBER SHEET NUMBER

SCHEMATIC DESIGN PLANS
& DETAILS
NOT FOR CONSTRUCTION

DGS TAHOE CONSERVANCY

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

AECOM
City Hall Tower, 16th Floor One East First St.
Reno, NV 89501
Tel: 775-227-9565

Cardno
Shaping the Future
295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

INDEX SHEET

ii

#	description	date

scale:	AS SHOWN
job no.:	00110066.04
drawn by:	MC
checked by:	CM

sheet no.: ii

sheet 2 of 25

date: 11/2015

CONSTRUCTION PHASING PLAN

PREFERRED ALTERNATIVE CONSTRUCTION ACTIVITIES AND SCHEDULE

THE DRAFT EIR/EIS/EIS PRESENTS INFORMATION ABOUT THE LOCATION AND DURATION OF CONSTRUCTION ACTIVITIES THAT WOULD OCCUR YEARLY FOR EACH ACTION ALTERNATIVES IN TABLE 2-5AND ILLUSTRATES THE PROPOSED ACCESS LOCATIONS, PROPOSED HAUL ROUTES, AND POTENTIAL STORAGE/STAGING AREAS IN EXHIBITS 2-5 TO 2-8. FOR THE PREFERRED ALTERNATIVE, THE ANTICIPATED CONSTRUCTION ACTIVITIES THAT WOULD OCCUR EACH YEAR ARE DESCRIBED BELOW AND THE ACCESS LOCATIONS, PROPOSED HAUL ROUTES, AND POTENTIAL STORAGE/STAGING AREAS ARE SHOWN IN EXHIBIT 2-7. CONSTRUCTION ACTIVITIES WOULD OCCUR FROM 8:00 A.M. TO 6:30 P.M. PURSUANT TO SECTION 68.9 OF THE TRPA CODE OF ORDINANCES.

YEAR 1

YEAR 1 CONSTRUCTION ACTIVITIES WOULD COMMENCE WITH MOBILIZATION ACTIVITIES THAT WOULD TAKE UP TO 1 MONTH TO COMPLETE. THESE MOBILIZATION ACTIVITIES WOULD INCLUDE CONSTRUCTING STAGING AREAS AND HAUL ROADS, INSTALLING BMPS, AND PLACING SIGNAGE. EXPECTED ACTIVITIES WOULD INCLUDE DELIVERY AND STORAGE OF CONSTRUCTION EQUIPMENT AND MATERIALS AND ESTABLISHING WORKER PARKING. PUBLIC ROADS WOULD BE USED TO ACCESS THE STAGING AREAS. ALL CONSTRUCTION EQUIPMENT AND HAUL TRUCKS WOULD OPERATE ON INTERNAL HAUL ROADS.

SUBSEQUENT ACTIVITIES WOULD INCLUDE MUCH OF THE EARTHWORK REQUIRED FOR THE RIVER AND FLOODPLAIN GRADING: LOWERING THE TERRACE SECTIONS AND RE-CONTOURING EXISTING SECONDARY CHANNELS (ON PRIVATE LANDS), AND CONSTRUCTING THE PILOT CHANNEL AND ITS VERTICAL GRADE CONTROL.. THESE ACTIVITIES WOULD REQUIRE 1-3 MONTHS TO COMPLETE.

SIGNIFICANT EXCAVATION AND SOIL MOVEMENT ACTIVITIES WOULD OCCUR ON-SITE IN YEAR 1. THE EXCAVATED MATERIAL THAT IS NOT REQUIRED FOR REUSE IN THE SAME YEAR WOULD BE EITHER STOCKPILED TEMPORARILY ON SITE AT ONE OF THE STORAGE AREAS PRIORITIZING THOSE OUTSIDE OF THE 100-YEAR FLOODPLAIN. THE EXCAVATED MATERIALS WOULD BE TRANSPORTED TO THE STAGING AREAS ON INTERNAL HAUL ROADS. THE MATERIALS WOULD BE TEMPORARILY STORED IN STOCKPILES WITH HEIGHTS RANGING BETWEEN 3 AND 8 FEET . AFTER EXCAVATION, PERMANENT REVEGETATION AND TEMPORARY IRRIGATION WOULD BE INSTALLED IN WORK AREAS AT FINAL GRADE, AS SOON AS POSSIBLE.

DURING CONSTRUCTION OF CHANNELS, IT IS POSSIBLE THAT DEWATERING OF EXCAVATIONS (I.E., REMOVAL OF COLLECTED WATER) MAY BE REQUIRED. TO MINIMIZE THE POTENTIAL FOR DEWATERING, CONSTRUCTION ACTIVITIES WITHIN THE LIVE CHANNEL WOULD BE AVOIDED WHENEVER POSSIBLE. WHEN CONSTRUCTION WITHIN THE LIVE CHANNEL IS REQUIRED, BARRIERS WOULD BE USED TO ISOLATE THE WORK AREAS FROM ANY FLOWING WATER. SEEPAGE INTO THE ISOLATED WORK AREAS WOULD BE PUMPED AND USED FOR IRRIGATION AND DUST CONTROL. IF THE QUANTITIES OF WATER WERE TO EXCEED THE DEMANDS FOR DUST CONTROL OR COULD RESULT IN IRRIGATION RUNOFF, TEMPORARY AND PORTABLE DETENTION BASINS WOULD BE CONSTRUCTED. THE BASINS WOULD BE CREATED USING PORTABLE CONTAINMENT BERMS AND USED TO STORE AND TREAT THE GROUNDWATER EFFLUENT. THE STORED WATER WOULD BE USED FOR IRRIGATION OR DUST CONTROL OR TREATED TO MEET SURFACE-WATER DISCHARGE REQUIREMENTS AND DISCHARGED BACK INTO THE LIVE CHANNEL.

YEAR 2

DURING YEAR 2, REVEGETATION AND IRRIGATION WORK WOULD CONTINUE ON THE PILOT CHANNEL, SECONDARY CHANNELS,AND LOWERED FLOODPLAIN MODIFICATIONS. PORTIONS OF BANK PROTECTION WOULD BE CONSTRUCTED. THE STREAMBED AND BANK STABILIZATION ON LOWER TROUT CREEK WOULD BE COMPLETED. VERTICAL GRADE CONTROLS WOULD BE CONSTRUCTED AT THE DOWNSTREAM END OF THE SITE (BY THE TROUT CREEK CONFLUENCE AND AT THE RIVER MOUTH). OVERFLOW CULVERTS WOULD BE INSTALLED UNDER U.S. 50 THROUGH THE EMBANKMENT FILL.

THROUGHOUT THE CONSTRUCTION SEASON, THE REVEGETATION TREATMENTS CONDUCTED DURING YEAR 1 WOULD BE IRRIGATED AND INSPECTED.

WORK RELATED TO THE MODIFICATION OF THE SAILING LAGOON AND DUNE RESTORATION WOULD OCCUR DURING YEAR 2. THE LAGOON WOULD BE ISOLATED FROM THE TAHOE KEYS MARINA BY INSTALLING THE BULKHEAD AND LEVEE ALONG AND EAST OF THE TAHOE KEYS MARINA CHANNEL AND PERFORMING SOME OF THE WATER QUALITY PROTECTIONS AND INVASIVE ORGANISM CONTROLS. THE ISOLATED LAGOON WOULD BE DRAINED, RECONTOURED, AND REVEGETATED. RECONTOURING OF THE SAILING LAGOON WOULD ENTAIL EXCAVATING SEDIMENT, SOME OF WHICH MAY BE HAULED OFF-SITE TO AN OUT-OF-BASIN STORAGE IF NOT SUITABLE FOR REUSE IN THE DUNE RECONSTRUCTION AND/OR CHANNEL BACKFILL. THE GENERAL HAUL ROUTE FOR THE OFF-SITE SEDIMENT TRANSPORT WOULD LIKELY BE FROM VENICE DRIVE TO TAHOE KEYS BOULEVARD AND THEN TO U.S. 50. THE SAILING LAGOON MODIFICATION ACTIVITIES COULD TAKE AS LONG AS 4 MONTHS TO COMPLETE.

YEAR 3

CONSTRUCTION OF PROJECT FEATURES WOULD BE COMPLETED DURING YEAR 3, ALONG WITH CONTINUED INSPECTION AND IRRIGATION OF REVEGETATION TREATMENTS INSTALLED IN YEARS 1 AND 2.

LAGOON AND DUNE RESTORATION WOULD BE COMPLETED IN YEAR 3. THE EASTERN END OF THE SAILING LAGOON WOULD BE RECONTOURED, AND THE LAGOON WOULD BE CONNECTED TO THE RIVER. FILL WOULD BE REMOVED BEHIND EAST BARTON BEACH TO RESTORE AND REVEGETATE LAGOON HABITAT.

CONSTRUCTION OF THE PILOT CHANNEL CONNECTION AND CONFLUENCE, INSTALLATION OF THE VERTICAL AND LATERAL GRADE CONTROLS IN THE MAIN CHANNEL, AND. WATER WOULD BE PUMPED INTO FINISHED CHANNEL SEGMENTS AND DIRECTED ONTO THE EXISTING VEGETATED MARSH SURFACES. FILL WOULD BE PLACED IN THE ABANDONED CHANNEL SECTIONS AND BE RECONTOURED; THE MODIFIED STORMWATER TREATMENT AREAS WOULD BE CONSTRUCTED. PERMANENT REVEGETATION AND TEMPORARY IRRIGATION WOULD BE INSTALLED IN ALL WORK AREAS AT FINAL GRADE.

PUBLIC-ACCESS AND RECREATION INFRASTRUCTURE WOULD BE CONSTRUCTED DURING YEAR 3, INCLUDING CONSTRUCTION OF TRAILS, THE OBSERVATION AREA, VIEWPOINT, KIOSK, AND THE ADA-ACCESSIBLE FISHING PLATFORM.

YEAR 4

CONSTRUCTION ACTIVITIES IN YEAR 4 WOULD BE LIMITED TO REVEGETATION AND IRRIGATION INSPECTION AND MAINTENANCE, AND PROJECT SHUTDOWN. ALTHOUGH SOME GROUND DISTURBANCE WOULD BE ASSOCIATED WITH THESE ACTIVITIES, CUT AND FILL OF MATERIALS WOULD NOT BE SUBSTANTIAL. ALL WORK IN YEAR 4 WOULD UTILIZE EITHER THE VENICE DRIVE OR STAGING AREAS.

SCHEMATIC DESIGN PLANS
& DETAILS
NOT FOR CONSTRUCTION

DGS TAHOE

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. # 560

AECOM

City Hall Tower, 16th Floor One East First St.
Reno, NV 89501
Tel: 775-227-9565

Cardno
Shaping the Future

295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

CONSTRUCTION PHASING

iii

REVISIONS

#	description	date

scale:	AS SHOWN
job no.:	00110066.04
drawn by:	MC
checked by:	CM

sheet no.: iii

sheet 3 of 25

date: 11/2015

Legend

- Project Boundary
- Existing 1000 ft. River Station
- Existing 100 ft. River Station - Upper Truckee
- Existing 100 ft. River Station - Trout Creek
- Existing Regional Bike Trail

Proposed Habitat Features

- Restored Lagoon
- Restored Meadow
- Tahoe Yellow Cress Restricted Use Area
- Reveg and Streambank Enhancement
- Restored Dune

Proposed River and Floodplain Features

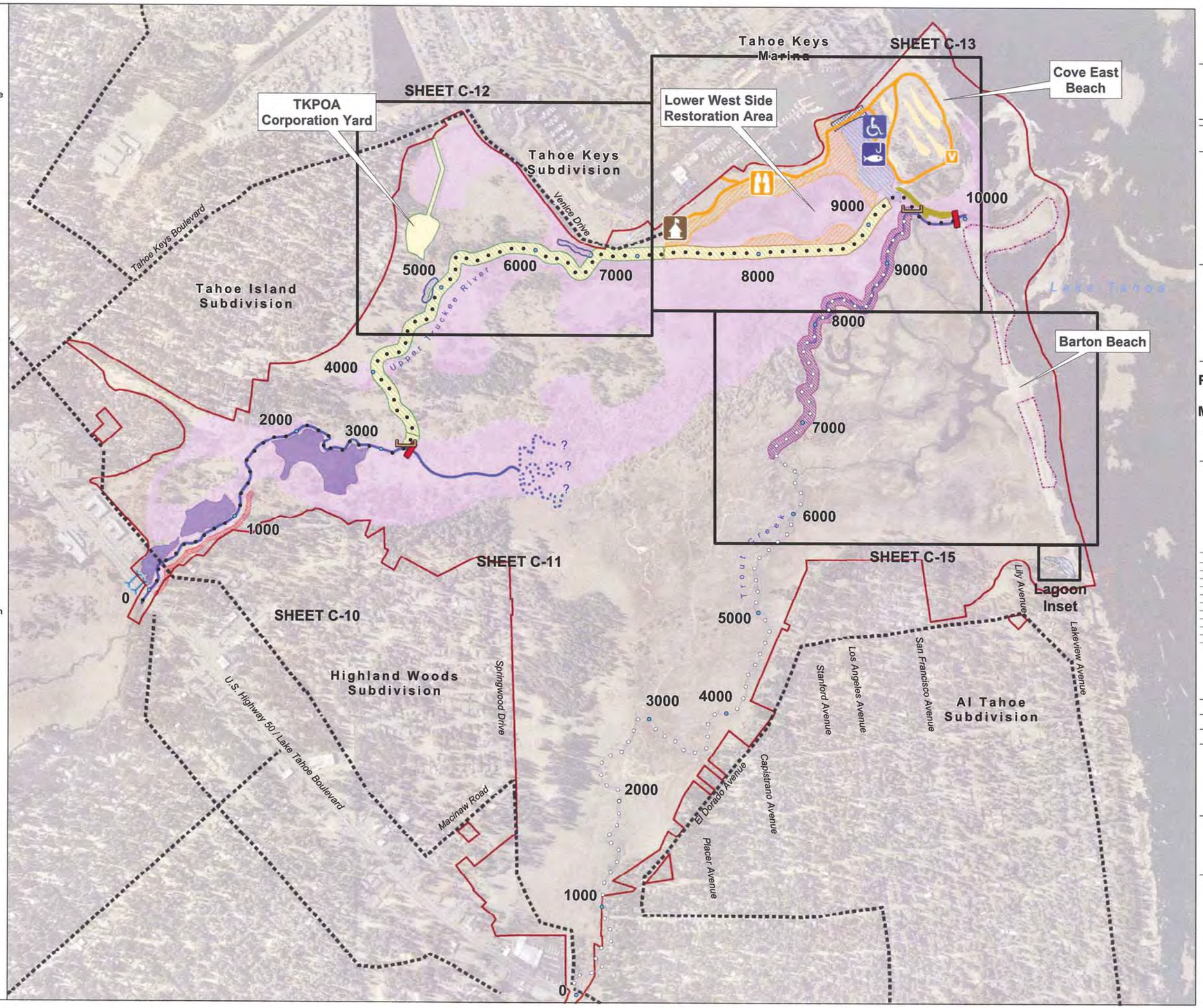
- Low and Bankful Flow Channel
- Potential Low Flow Path
- Active Floodplain
- Removal of Reserve Fill
- Partial Fill of Existing Channel
- Channel Backfill
- Floodplain Areas of Excavation

Proposed Engineered Features

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

Proposed Public Access Features

- Viewpoint (See Sheet L-2)
- Trail (See Sheet L-1)
- Fishing Platform (See Sheet L-4)
- ADA Accessible
- Observation Area (See Sheet L-3)
- Kiosk (See Sheet L-5)



DGS

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. #560

AECOM

City Hall Tower, 16th Floor One East First St.
Reno, NV 89501
Tel: 775-337-9565

Cardno
Shaping the Future

295 Highway 50, Suite 1, P.O. Box 1533
Zephyr Cove, NV 89448
Phone (775) 588-9069 Fax (775) 588-9219

PREFERRED ALTERNATIVE

MIDDLE MARSH CORRIDOR MODERATE RECREATION INFRASTRUCTURE

S-1

REVISIONS

#	description	date

scale :	As Noted
job no. :	00110066.04
drawn by :	EL
checked by :	CM

sheet no. : S-1

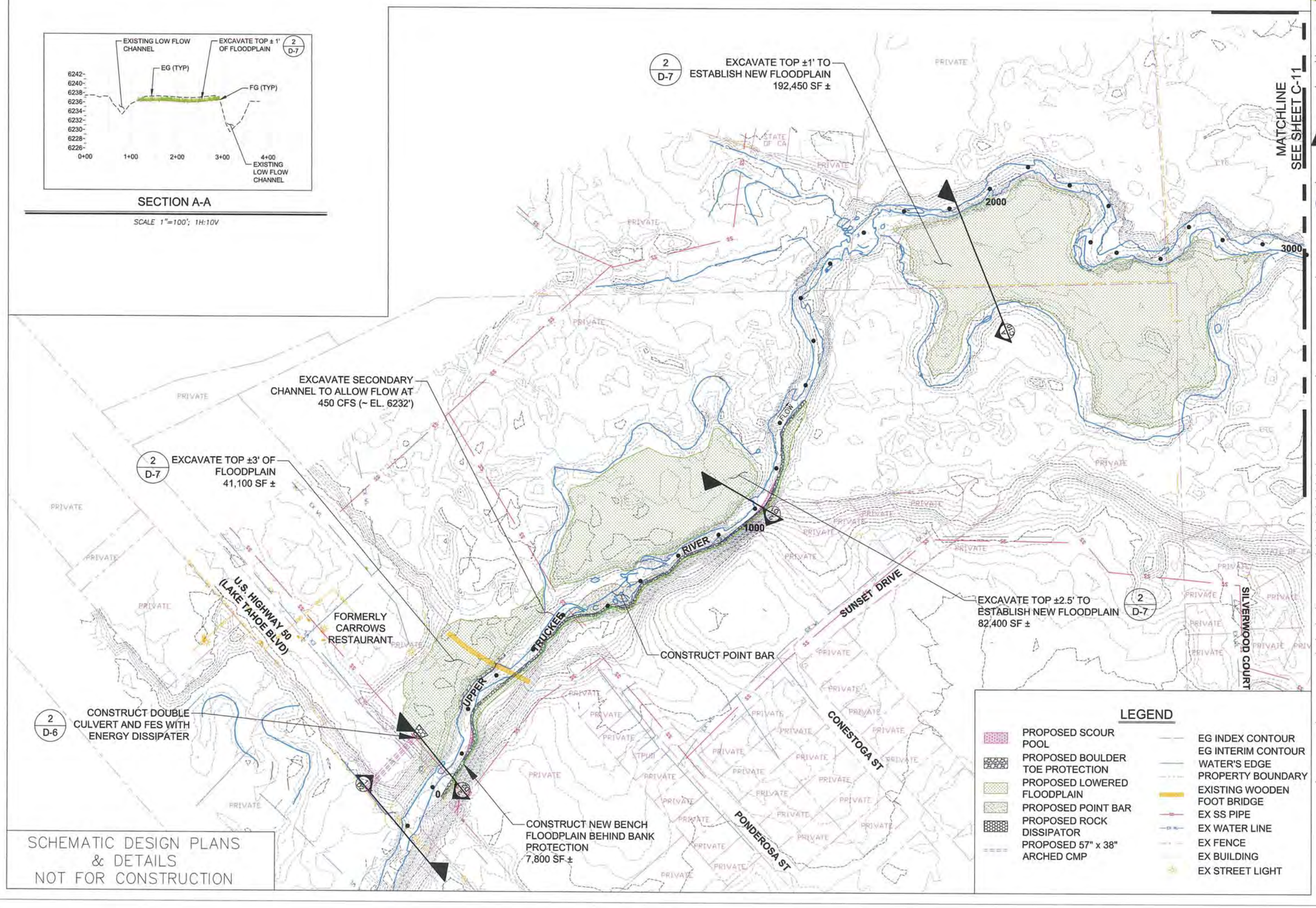
sheet 4 of 26

date : 11/03/15

Feet
0 400 800

SECTION A-A

SCALE 1"=100'; 1H:10V



SCHEMATIC DESIGN PLANS
& DETAILS
NOT FOR CONSTRUCTION

LEGEND

- PROPOSED SCOUR POOL
- PROPOSED BOULDER TOE PROTECTION
- PROPOSED LOWERED FLOODPLAIN
- PROPOSED POINT BAR
- PROPOSED ROCK DISSIPATOR
- PROPOSED 57" x 38" ARCHED CMP
- EG INDEX CONTOUR
- EG INTERIM CONTOUR
- WATER'S EDGE
- PROPERTY BOUNDARY
- EXISTING WOODEN FOOT BRIDGE
- EX SS PIPE
- EX WATER LINE
- EX FENCE
- EX BUILDING
- EX STREET LIGHT

DGS

CALIFORNIA TAHOE CONSERVANCY

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. # 560

AECOM
City Hall Tower, 16th Floor One East First St.
Reno, NV 89501
Tel: 775-227-9565

Cardno
Shaping the Future
295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

UPSTREAM REACH PLAN

C-10

REVISIONS

#	description	date

scale:	AS SHOWN
job no.:	00110066.04
drawn by:	CK
checked by:	CM

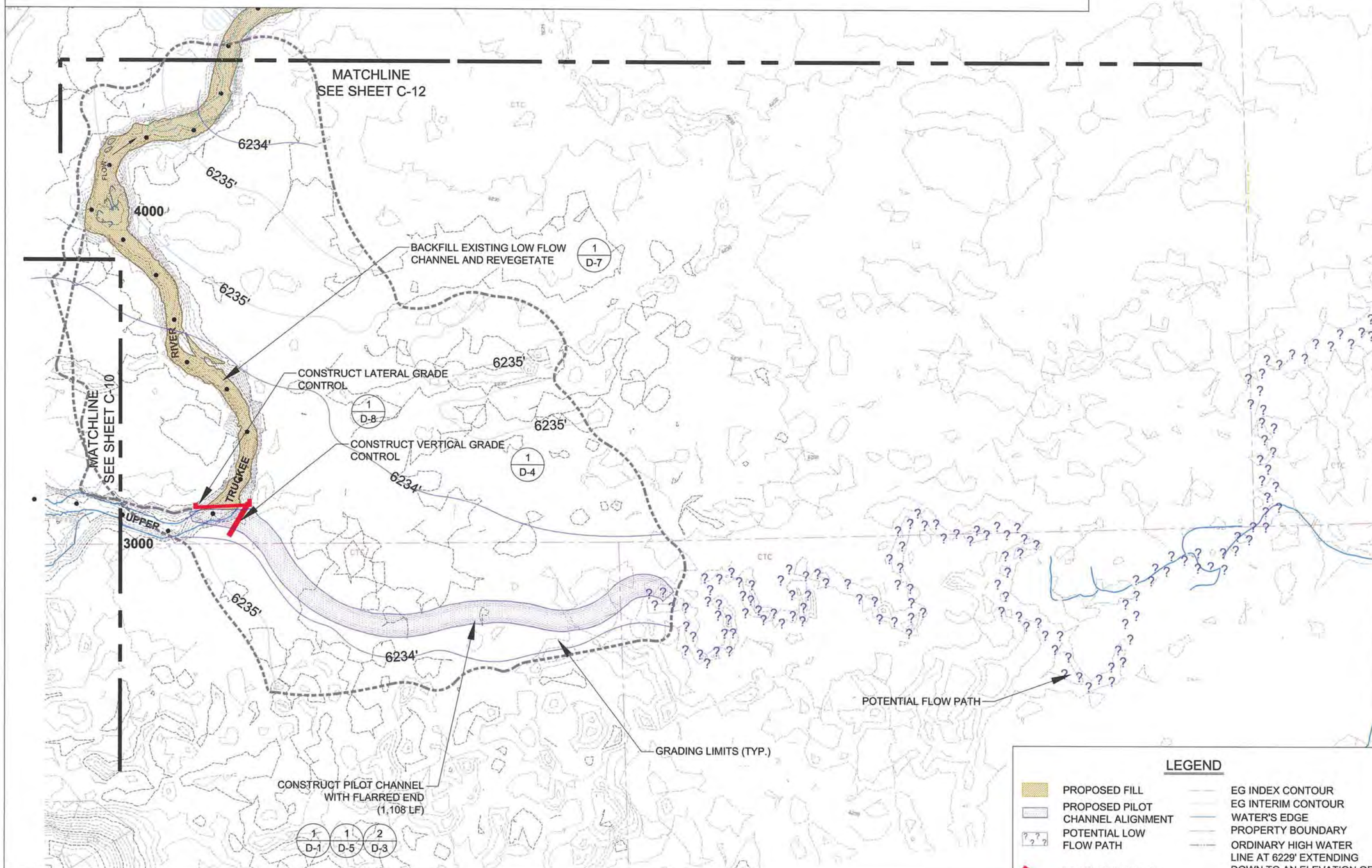
sheet no.: C-10

sheet 5 of 25

date: 11/2015

0 100 200
SCALE IN FEET

SCHEMATIC DESIGN PLANS
& DETAILS
NOT FOR CONSTRUCTION



LEGEND

- PROPOSED FILL
- PROPOSED PILOT CHANNEL ALIGNMENT
- POTENTIAL LOW FLOW PATH
- PROPOSED GRADE CONTROL STRUCTURE
- PROPOSED GRADING LIMITS
- EG INDEX CONTOUR
- EG INTERIM CONTOUR
- WATER'S EDGE
- PROPERTY BOUNDARY
- ORDINARY HIGH WATER LINE AT 6229' EXTENDING DOWN TO AN ELEVATION OF 6223' (BASED ON THE LAKE TAHOE DATUM)

DGS CALIFORNIA TAHOE CONSERVANCY

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. # 560

AECOM
City Hall Tower, 16th Floor One East First St.
Reno, NV 89501
Tel: 775-227-9565

Cardno
Shaping the Future
295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

MID-MARSH
PLAN
SHEET A

C-11

REVISIONS

#	description	date

scale:	AS SHOWN
job no.:	00110066.04
drawn by:	CK
checked by:	CM

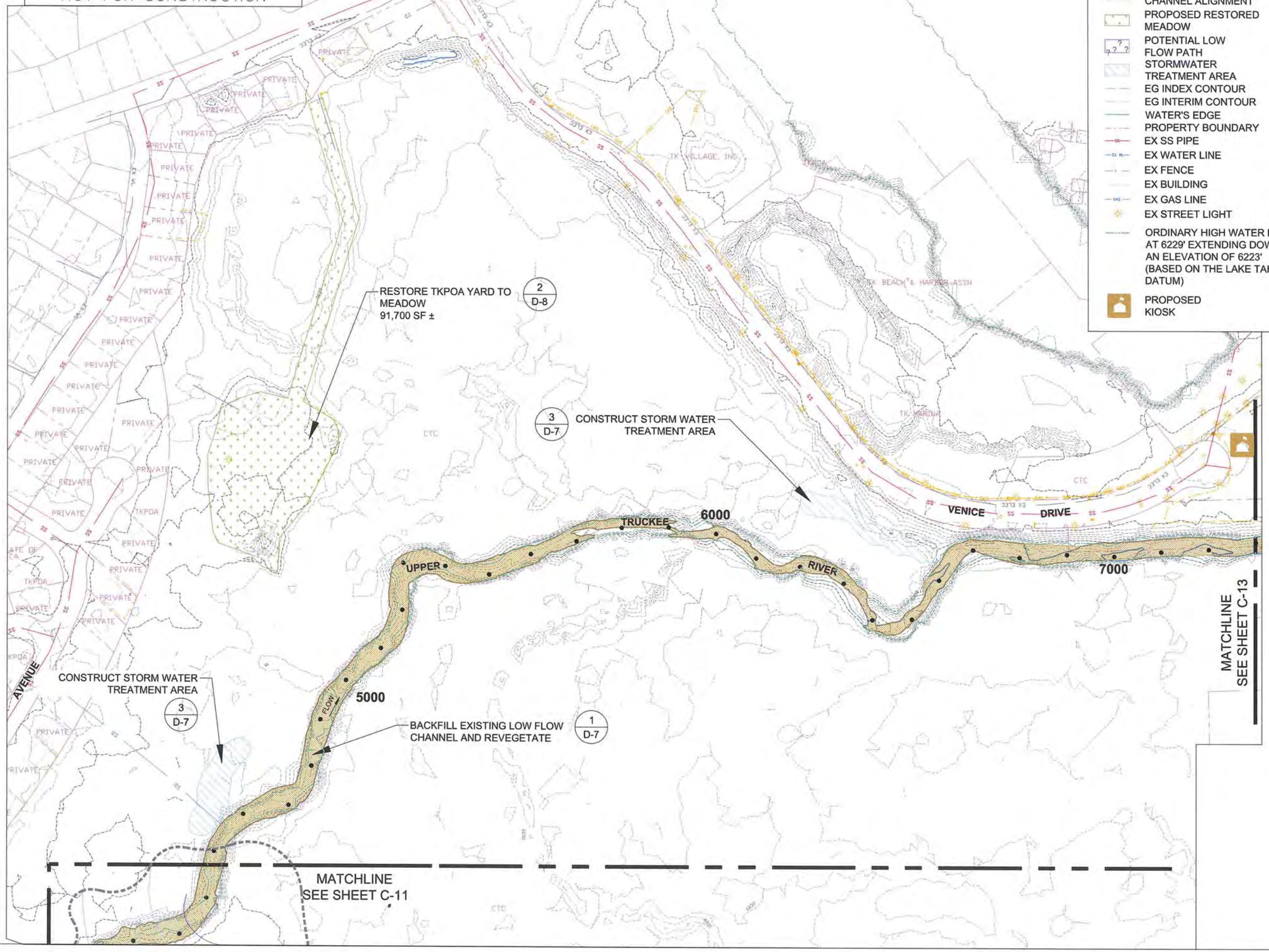
sheet no.: C-11

sheet 6 of 25

date: 11/2015

0 100 200
SCALE IN FEET

SCHEMATIC DESIGN PLANS
& DETAILS
NOT FOR CONSTRUCTION



LEGEND

- PROPOSED FILL
- PROPOSED PILOT CHANNEL ALIGNMENT
- PROPOSED RESTORED MEADOW
- POTENTIAL LOW FLOW PATH
- STORMWATER TREATMENT AREA
- EG INDEX CONTOUR
- EG INTERIM CONTOUR
- WATER'S EDGE
- PROPERTY BOUNDARY
- EX SS PIPE
- EX WATER LINE
- EX FENCE
- EX BUILDING
- EX GAS LINE
- EX STREET LIGHT
- ORDINARY HIGH WATER LINE AT 6229' EXTENDING DOWN TO AN ELEVATION OF 6223' (BASED ON THE LAKE TAHOE DATUM)
- PROPOSED KIOSK

DGS
CALIFORNIA TAHOE CONSERVANCY

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. # 560

AECOM
City Hall Tower, 16th Floor One East First St.
Reno, NV 89501
Tel: 775-227-9565

Cardno
Shaping the Future
295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

MID-MARSH
PLAN
SHEET B

C-12

REVISIONS

#	description	date

scale:	AS SHOWN
job no.:	00110066.04
drawn by:	CK
checked by:	CM

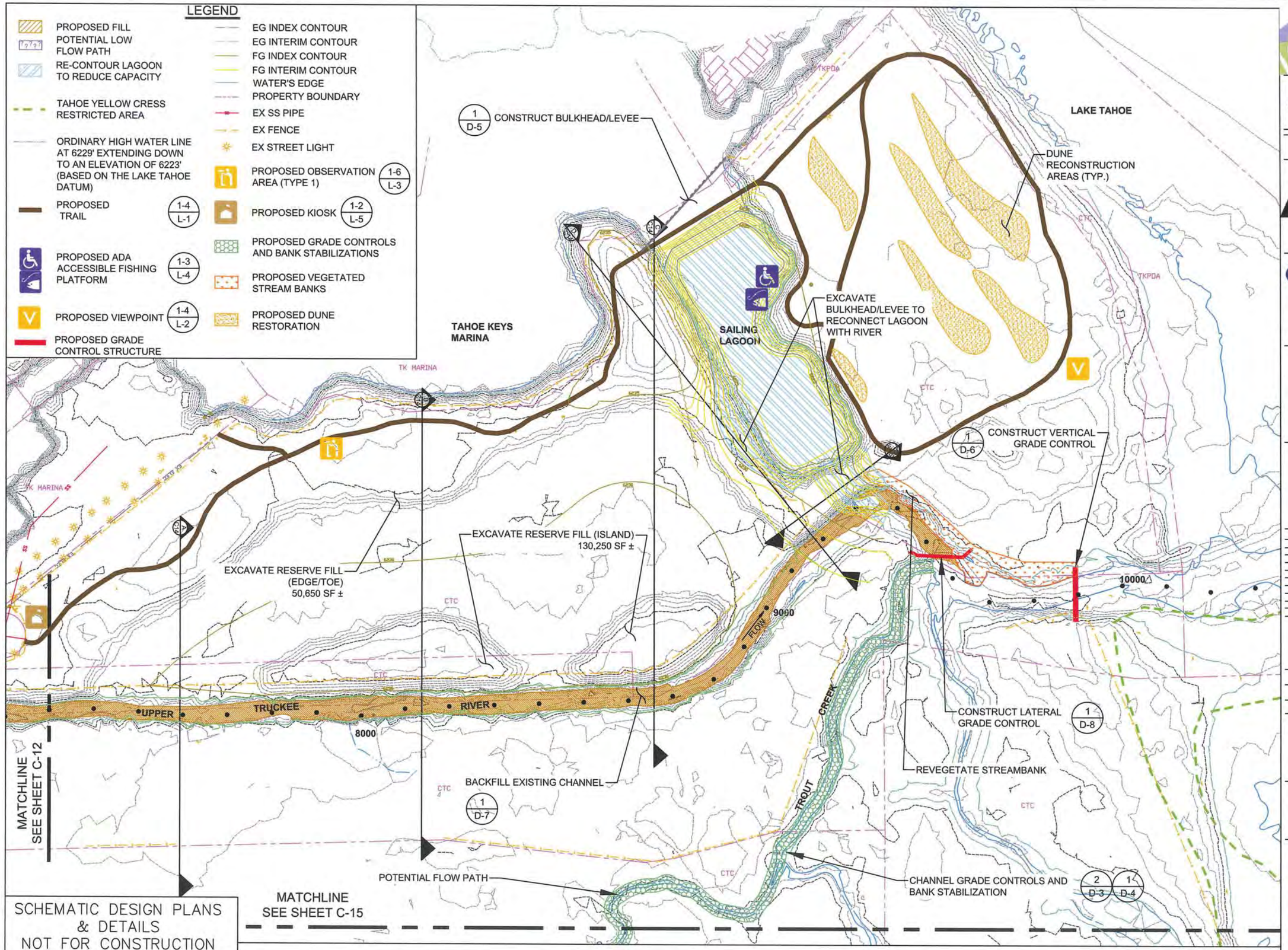
sheet no.: C-12

sheet 7 of 25
date: 11/2015

0 100 200
SCALE IN FEET

LEGEND

- PROPOSED FILL
- POTENTIAL LOW FLOW PATH
- RE-CONTOUR LAGOON TO REDUCE CAPACITY
- TAHOE YELLOW CRESS RESTRICTED AREA
- ORDINARY HIGH WATER LINE AT 6229' EXTENDING DOWN TO AN ELEVATION OF 6223' (BASED ON THE LAKE TAHOE DATUM)
- PROPOSED TRAIL (1-4 / L-1)
- PROPOSED ADA ACCESSIBLE FISHING PLATFORM (1-3 / L-4)
- PROPOSED VIEWPOINT (1-4 / L-2)
- PROPOSED GRADE CONTROL STRUCTURE
- EG INDEX CONTOUR
- EG INTERIM CONTOUR
- FG INDEX CONTOUR
- FG INTERIM CONTOUR
- WATER'S EDGE
- PROPERTY BOUNDARY
- EX SS PIPE
- EX FENCE
- EX STREET LIGHT
- PROPOSED OBSERVATION AREA (TYPE 1) (1-6 / L-3)
- PROPOSED KIOSK (1-2 / L-5)
- PROPOSED GRADE CONTROLS AND BANK STABILIZATIONS
- PROPOSED VEGETATED STREAM BANKS
- PROPOSED DUNE RESTORATION



SCHEMATIC DESIGN PLANS & DETAILS NOT FOR CONSTRUCTION

DGS

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. # 560

AECOM
City Hall Tower, 16th Floor One East First St.
Reno, NV 89501
Tel: 775-227-9565

Cardno
Shaping the Future
295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

DOWNSTREAM REACH PLAN

C-13

REVISIONS

#	description	date

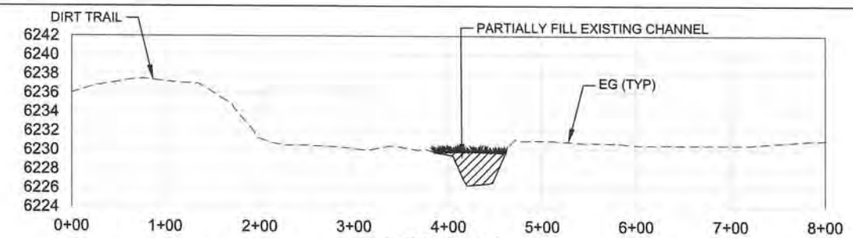
scale:	AS SHOWN
job no.:	00110066.04
drawn by:	CK
checked by:	CM

sheet no.: C-13

sheet 8 of 25

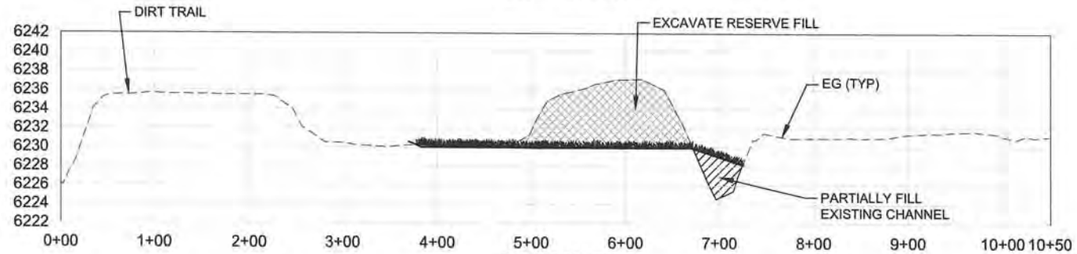
date: 11/2015

0 100 200
SCALE IN FEET



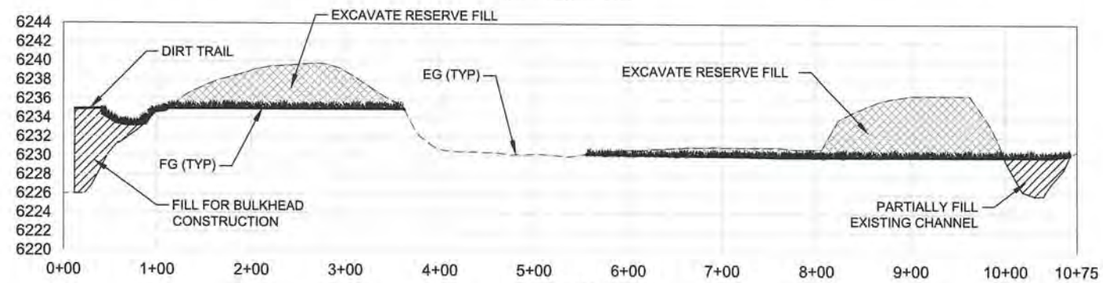
SECTION A-A

SCALE 1"=80'; 1H:10V



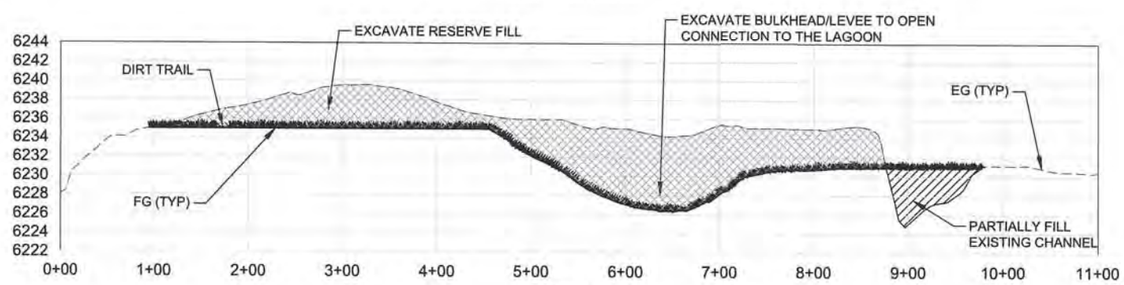
SECTION B-B

SCALE 1"=80'; 1H:10V



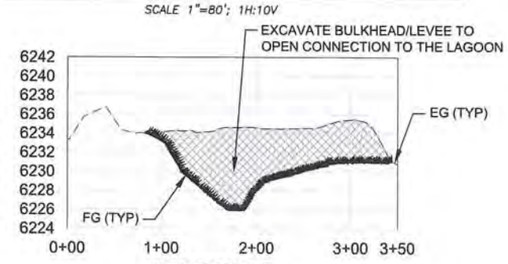
SECTION C-C

SCALE 1"=80'; 1H:10V



SECTION D-D

SCALE 1"=80'; 1H:10V



SECTION E-E

SCALE 1"=80'; 1H:10V

SCHEMATIC DESIGN PLANS
& DETAILS
NOT FOR CONSTRUCTION

LEGEND

PROPOSED CUT

PROPOSED FILL

PROPOSED REVEGETATION

DGS

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. # 560

City Hall Tower, 16th Floor One East First St.
Reno, NV 89501
Tel: 775-227-9565

Cardno
Shaping the Future

295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

DOWNSTREAM REACH CROSS-SECTIONS

C-14

REVISIONS

#	description	date

scale:	AS SHOWN
job no.:	00110066.04
drawn by:	CK
checked by:	CM

sheet no.: C-14

sheet 9 of 26

date: 04/2015

0 80 160
SCALE IN FEET

MATCHLINE
SEE SHEET C-13

POTENTIAL FLOW PATH

MATCHLINE
SEE SHEET C-11

SCHEMATIC DESIGN PLANS
& DETAILS
NOT FOR CONSTRUCTION

LEGEND

- POTENTIAL LOW FLOW PATH
- TAHOE YELLOW CRESS RESTRICTED USE AREA
- ORDINARY HIGH WATER LINE AT 6229' EXTENDING DOWN TO AN ELEVATION OF 6223' (BASED ON THE LAKE TAHOE DATUM)
- EG INDEX CONTOUR
- EG INTERIM CONTOUR
- FG INDEX CONTOUR
- FG INTERIM CONTOUR
- WATER'S EDGE
- PROPERTY BOUNDARY
- EX FENCE
- PROPOSED GRADE CONTROLS AND BANK STABILIZATIONS
- PROPOSED LILY LAGOON

LILY LAGOON RESTORATION
(~18,000 SF)

SEE INSET

DGS

CALIFORNIA TAHOE CONSERVANCY

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. # 560

AECOM

City Hall Tower, 16th Floor One East First St.
Reno, NV 89501
Tel: 775-227-9565

Cardno
Shaping the Future

295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

DOWNSTREAM BARTON BEACH

C-15

REVISIONS

#	description	date

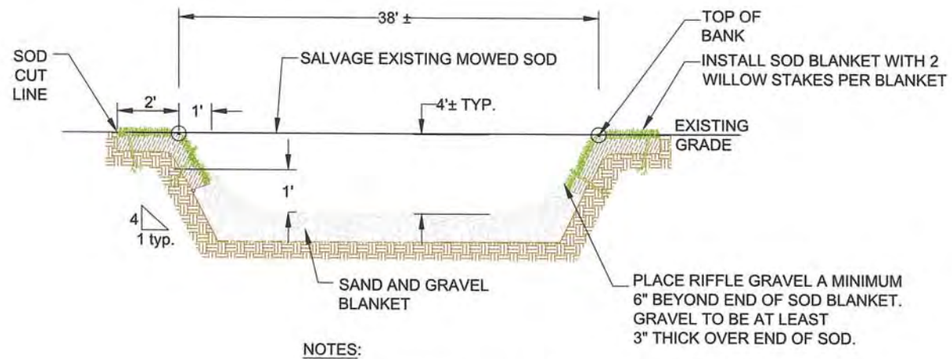
scale:	AS SHOWN
job no.:	00110066.04
drawn by:	CK
checked by:	CM

sheet no.: C-15

sheet 10 of 25

date: 11/2015

0 100 200
SCALE IN FEET

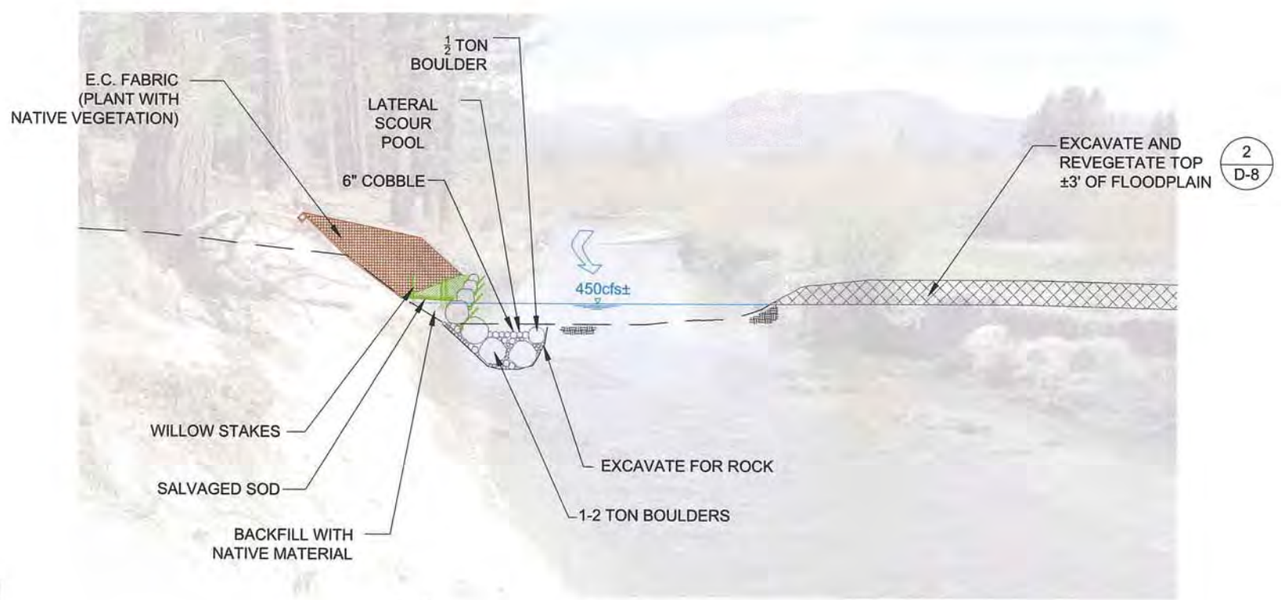


NOTES:

1. TOP OF BANK LINE SHALL BE PAINTED PRIOR TO GRADING, BY THE ENGINEER.

1 / D-1 PILOT CHANNEL TYP. CROSS-SECTION

NTS



2 / D-1 BANK STABILIZATION OUTSIDE BEND

N.T.S.

SCHEMATIC DESIGN PLANS
& DETAILS
NOT FOR CONSTRUCTION

DGS CALIFORNIA TAHOE CONSERVANCY

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. # 560

AECOM
City Hall Tower, 16th Floor One East First St.
Reno, NV 89501
Tel: 775-227-9565

Cardno
Shaping the Future
295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

DETAILS

D-1

REVISIONS

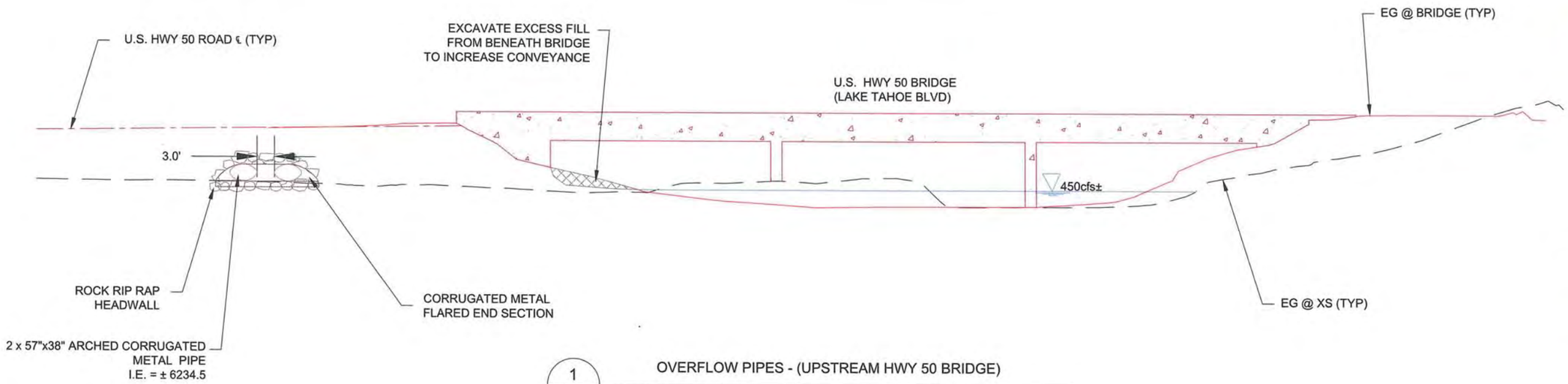
#	description	date

scale:	AS SHOWN
job no.:	00110066.04
drawn by:	CK
checked by:	CM

sheet no.: D-1

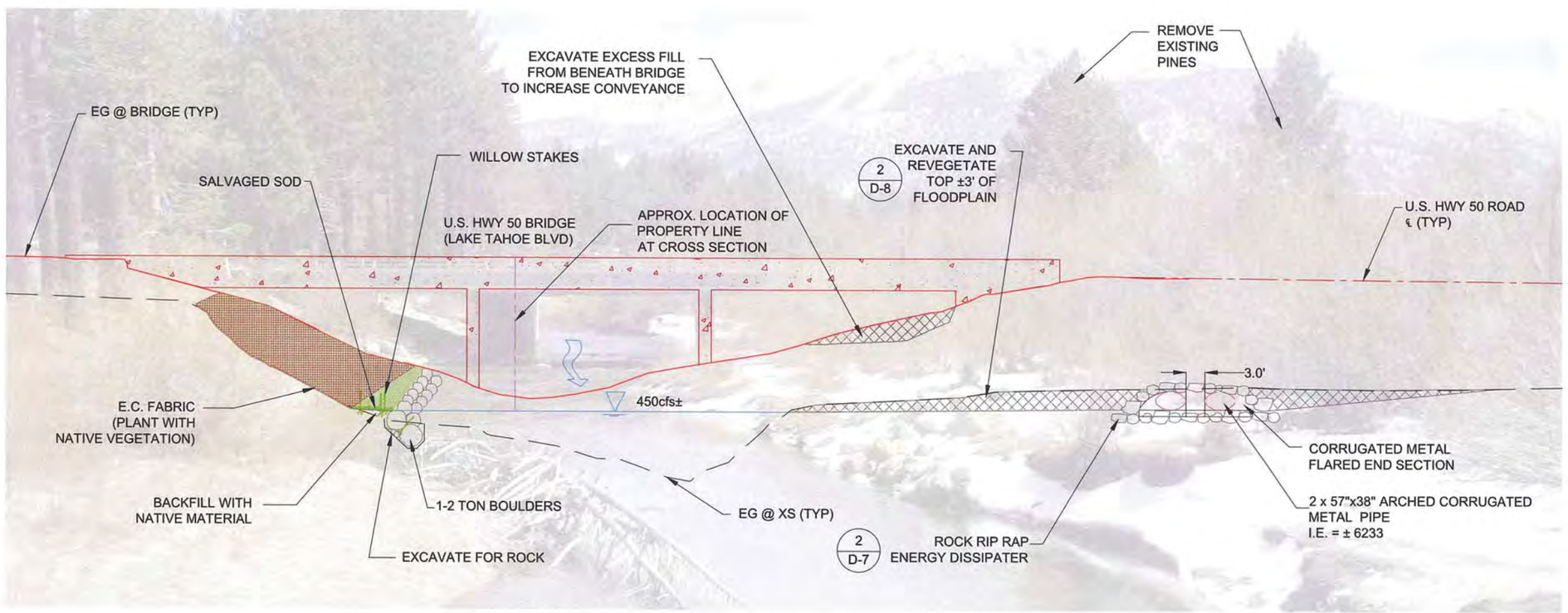
sheet 11 of 25

date: 11/2015



1 / D-2 OVERFLOW PIPES - (UPSTREAM HWY 50 BRIDGE)

N.T.S.



2 / D-2 OVERFLOW PIPES AND BANK PROTECTION (DOWNSTREAM HWY. 50 BRIDGE)

N.T.S.

SCHEMATIC DESIGN PLANS
& DETAILS
NOT FOR CONSTRUCTION

DGS CALIFORNIA TAHOE CONSERVANCY

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. # 560

AECOM
City Hall Tower, 16th Floor One East First St.
Reno, NV 89501
Tel: 775-227-9565

Cardno
Shaping the Future
295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

DETAILS

D-2

REVISIONS

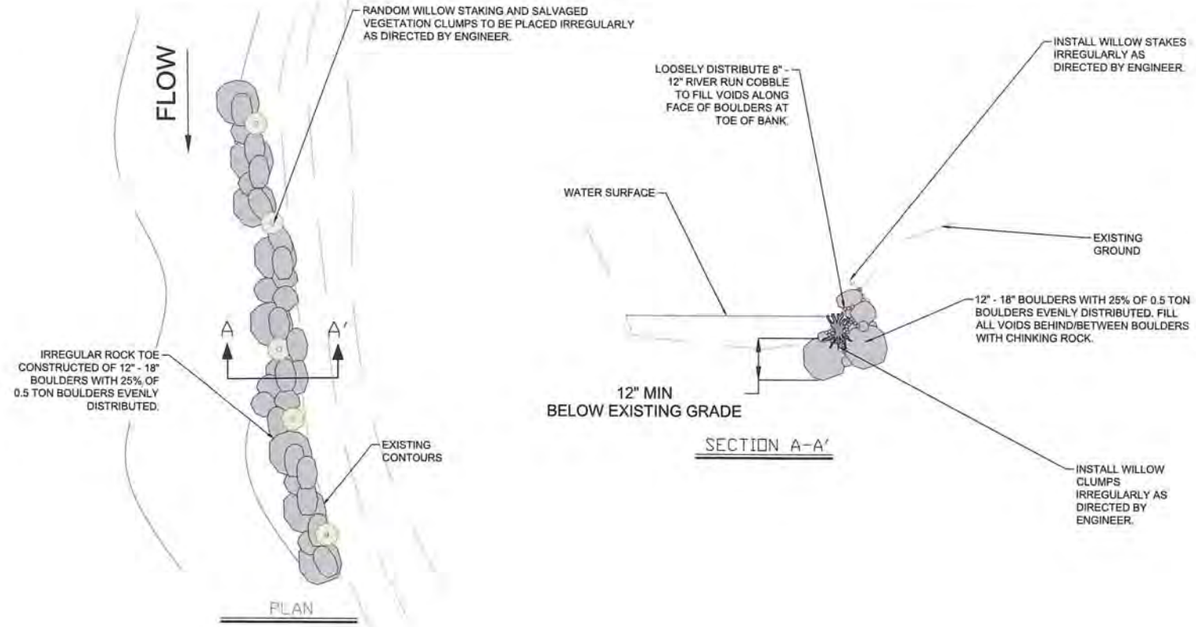
#	description	date

scale:	AS SHOWN
job no.:	00110066.04
drawn by:	CK
checked by:	CM

sheet no.: D-2

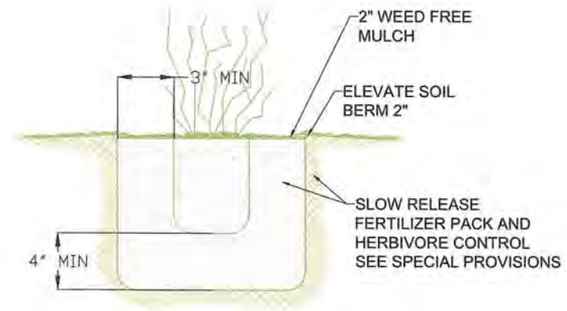
sheet 12 of 25

date: 11/2015



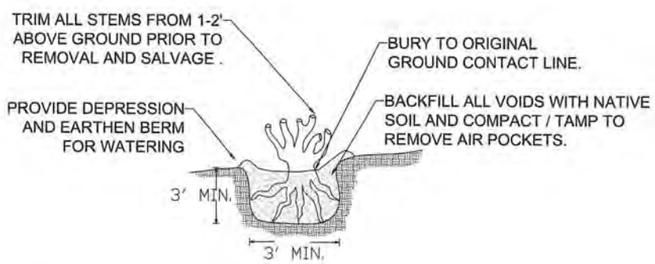
1 / D-3 LATERAL GRADE CONTROL / BANK PROTECTION

N.T.S.



CONTAINERIZED PLANT (TYP.)

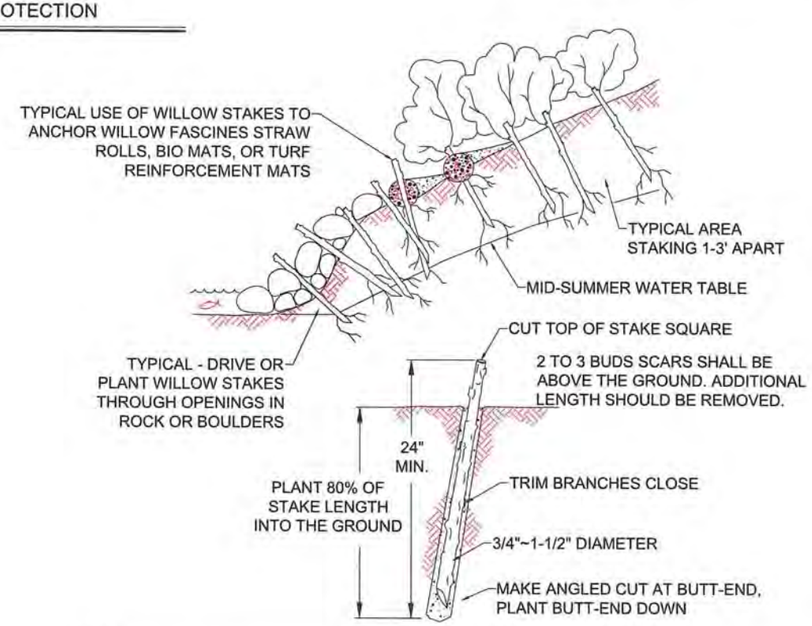
NTS



NOTES:
1. DURING REMOVAL AND SALVAGE OPERATION RETAIN SOIL SURROUNDING ROOT BALL TRIM ROOTS AS NEEDED.
2. WHEN INSTALLED IN CHANNEL BANK, ROOTWAD SHALL BE SUBSTANTIALLY INUNDATED AT BASEFLOW AND SHALL BE INSTALLED TO FORM POOLS ADJACENT TO IT.

SALVAGE AND RELOCATE WILLOW/ALDER (TYP.)

NTS



NOTES:
1. HARVEST AND PLANT STAKES DURING THE DORMANT SEASON.
2. USE HEALTHY, STRAIGHT AND LIVE WOOD AT LEAST 1 YEAR OLD.
3. MAKE CLEAN CUTS AND DO NOT DAMAGE STAKES OR SPLIT ENDS DURING INSTALLATION, USE A PILOT BAR IN FIRM SOILS.
4. SOAK CUTTINGS FOR 24 HOURS (MIN.) PRIOR TO INSTALLATION.
5. COMPACT / TAMP THE SOIL AROUND THE STAKE TO REMOVE ALL AIR POCKETS.

WILLOW STAKES (TYP.)

NTS

1 / D-3 BANK PROTECTION (OPTIONS) TYP.

N.T.S.

SCHEMATIC DESIGN PLANS & DETAILS NOT FOR CONSTRUCTION

DGS CALIFORNIA TAHOE CONSERVANCY

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. # 560

AECOM
City Hall Tower, 16th Floor One East First St.
Reno, NV 89501
Tel: 775-227-9565

Cardno
Shaping the Future
295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

DETAILS

D-3

REVISIONS

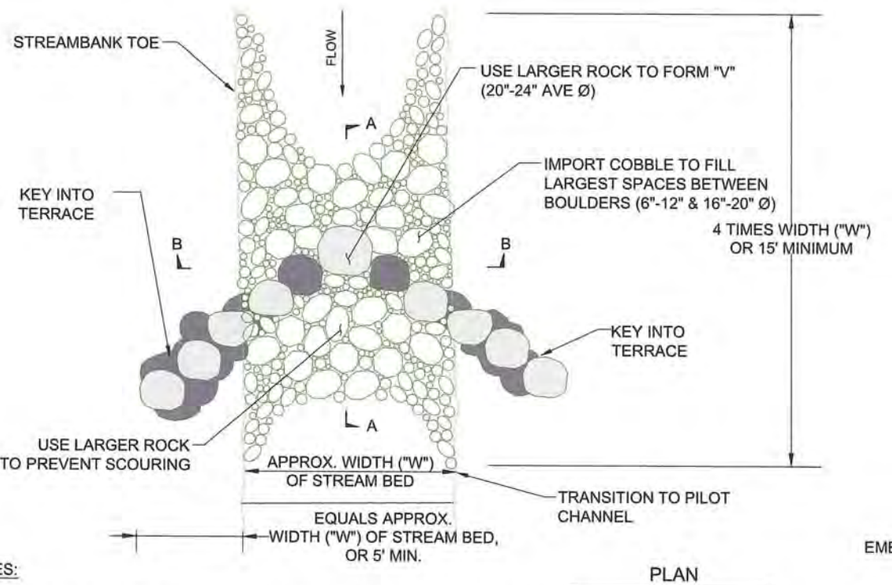
#	description	date

scale:	AS SHOWN
job no.:	00110066.04
drawn by:	CK
checked by:	CM

sheet no.: D-3

sheet 13 of 25

date: 11/2015

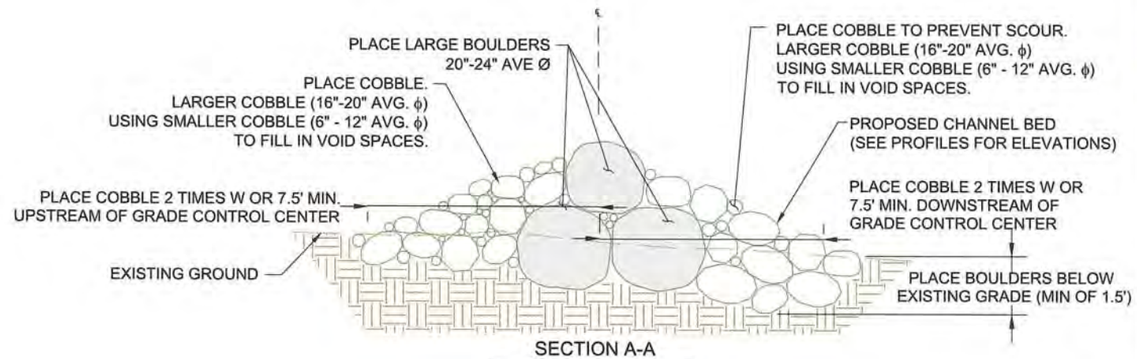


PLAN

N.T.S.

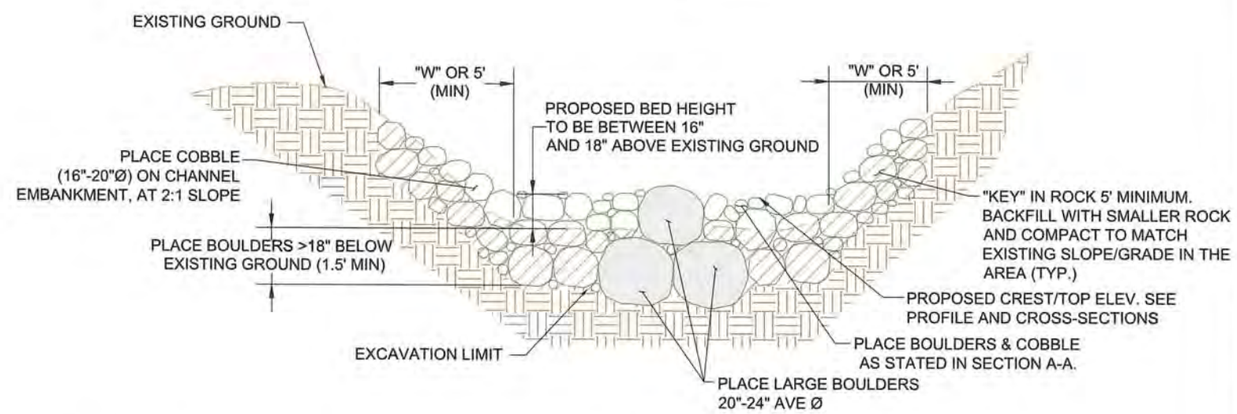
NOTES:

1. TOTAL VOLUME 90± CY OF ROCK AT EACH GRADE CONTROL STRUCTURE
2. LARGE BOULDERS (20"-24" AVE Ø) PLACED TO FROM "V" IN GRADE CONTROL STRUCTURE SHALL BE PLACED (VERTICAL/ELEVATION) STARTING AT ℄ OF CHANNEL 16"-18" BELOW EXISTING GROUND.
3. THE ELEVATION OF THE LARGE BOULDERS (20"-24" AVE Ø) SHALL INCREASE AT 2% ± GOING AWAY FROM THE CHANNEL ℄ AND INTO THE EMBANKMENT. THE BOTTOM OF THE ROCK IN THE CHANNEL ℄ SHALL BE APPROXIMATELY 0.25' LOWER THAN THE LAST ROCK PLACED (FURTHEST INTO EMBANKMENT).



SECTION A-A

N.T.S.



SECTION B-B

N.T.S.

1 / D-4 BURIED BOULDER VERTICAL GRADE CONTROL (TYP.)

N.T.S.

SCHEMATIC DESIGN PLANS & DETAILS NOT FOR CONSTRUCTION

DGS CALIFORNIA TAHOE CONSERVANCY

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. # 560

AECOM
City Hall Tower, 16th Floor One East First St.
Reno, NV 89501
Tel: 775-227-9565

Cardno
Shaping the Future
295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

DETAILS

D-4

REVISIONS

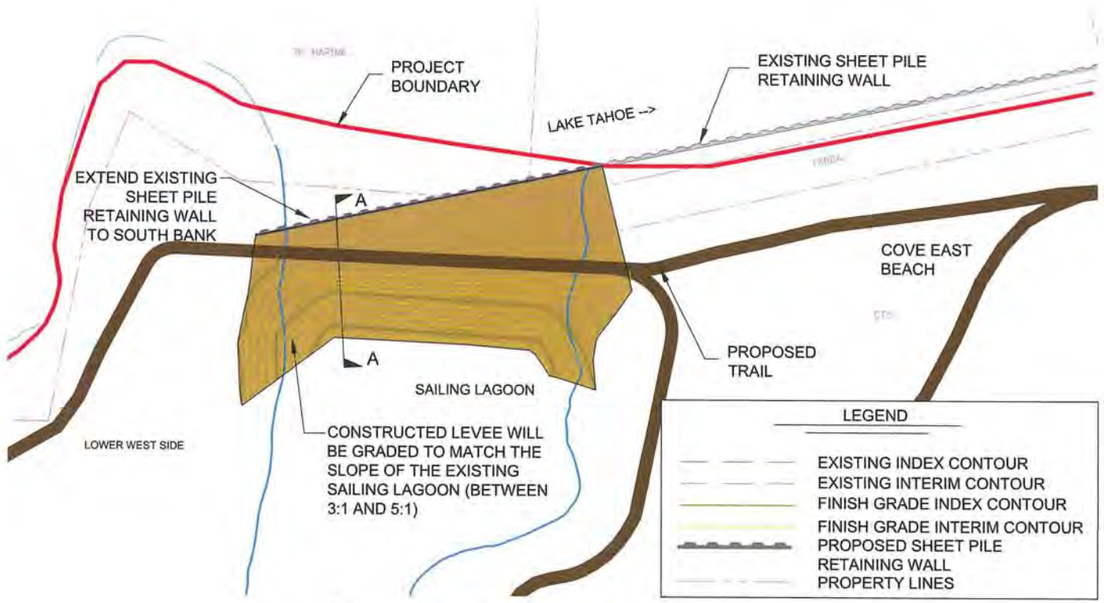
#	description	date

scale:	AS SHOWN
job no.:	00110066.04
drawn by:	CK
checked by:	CM

sheet no.: D-4

sheet 14 of 25

date: 11/2015

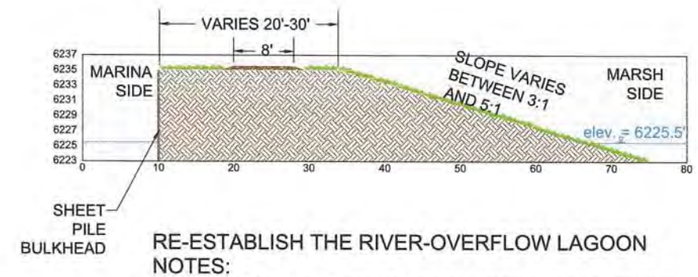


PLAN

SCALE: 1"=60'

LEGEND

- EXISTING INDEX CONTOUR
- EXISTING INTERIM CONTOUR
- FINISH GRADE INDEX CONTOUR
- FINISH GRADE INTERIM CONTOUR
- PROPOSED SHEET PILE RETAINING WALL
- PROPERTY LINES



SECTION A-A

SCALE: 1"=10', 1H:1V

1 / D-5 SAILING LAGOON BULKHEAD - PREFERRED ALTERNATIVE

RE-ESTABLISH THE RIVER-OVERFLOW LAGOON

NOTES:

1. THE SURFACE WATER OF THE SAILING LAGOON IS PART OF THE TAHOE KEYS MARINA AND IS HYDRAULICALLY CONNECTED TO LAKE TAHOE, A RESULT OF PRIOR DREDGING AND FILL ACTIVITIES TO PROVIDE VARIOUS NAVIGATION ROUTES SINCE THE 1950'S.

2. THE PREFERRED ALTERNATIVE WILL RESTORE A LAGOON FEATURE ON THE UPPER TRUCKEE BY: 1) CONSTRUCTING A BULKHEAD AT THE EXISTING SAILING LAGOON TO BLOCK ITS OPEN CONNECTION WITH THE MARINA; AND 2) RE-EXCAVATING THE FILL BETWEEN THE SAILING LAGOON AND THE UPPER TRUCKEE SO THAT THE RIVER IS A SURFACE WATER SOURCE TO THE LAGOON.

3. THE LOWER WEST SIDE PLAN SHEETS SHOW THE PROPOSED ALTERNATIVES FOR RECONNECTING THE SAILING LAGOON TO THE UPPER TRUCKEE RIVER.

SCHEMATIC DESIGN PLANS
& DETAILS
NOT FOR CONSTRUCTION

DGS CALIFORNIA TAHOE CONSERVANCY

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. # 560

AECOM
City Hall Tower, 16th Floor One East First St.
Reno, NV 89501
Tel: 775-227-9565

Cardno
Shaping the Future
295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

DETAILS

D-5

REVISIONS

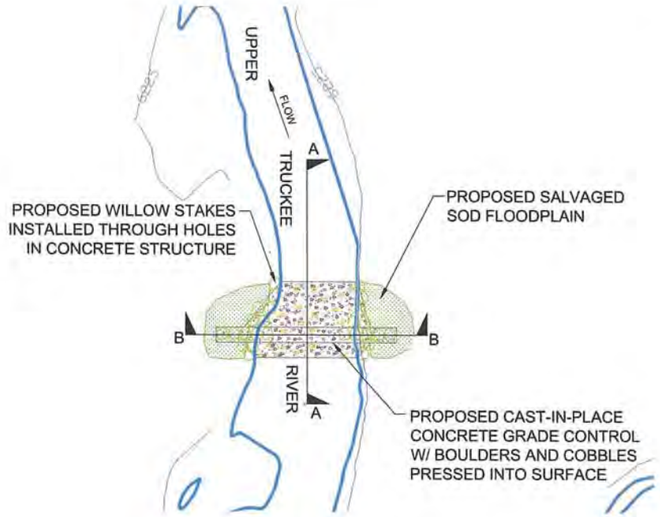
#	description	date

scale:	AS SHOWN
job no.:	00110066.04
drawn by:	CK
checked by:	CM

sheet no.: D-5

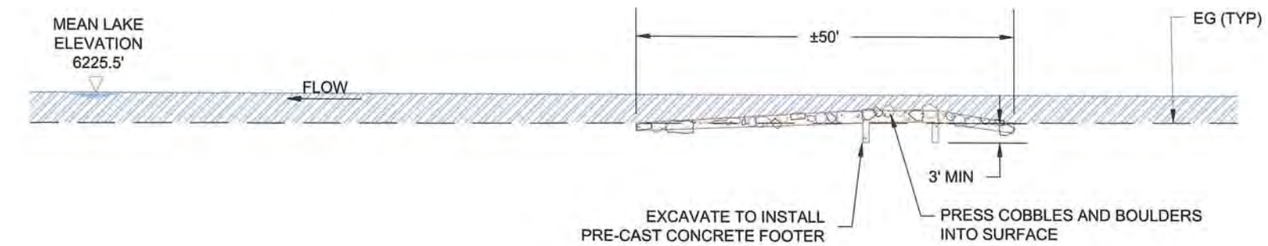
sheet 15 of 25

date: 11/2015



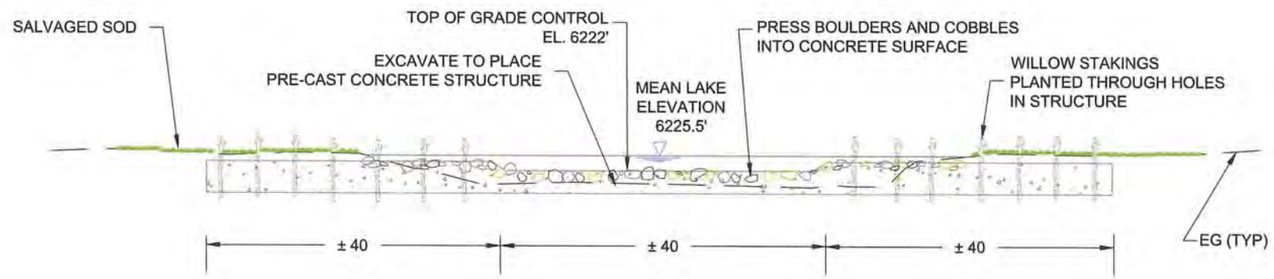
PLAN

SCALE: 1"=50'



SECTION A-A

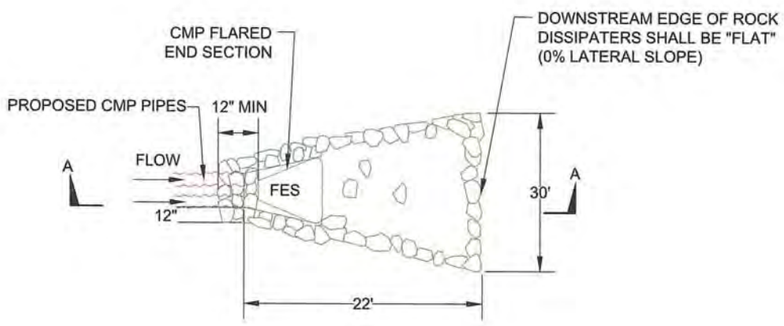
N.T.S.



SECTION B-B

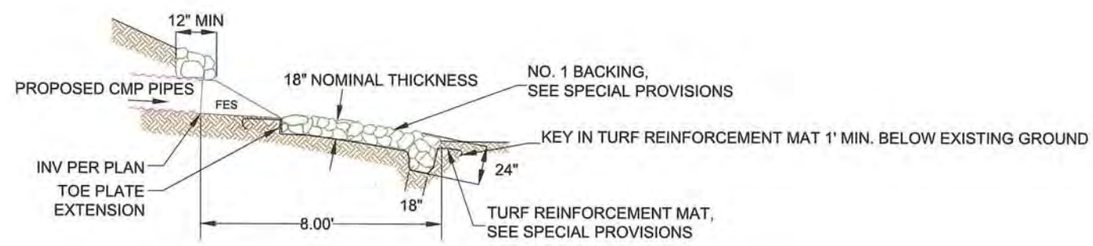
N.T.S.

1 / D-6 BIOENGINEERED GRADE CONTROL AT RIVER MOUTH



PLAN

N.T.S.



NOTES: 1. SEE SPECIAL PROVISIONS FOR SUBGRADE COMPACTION REQUIREMENTS.

SECTION A-A

N.T.S.

2 / D-6 ROCK RIP-RAP ENERGY DISSIPATOR

N.T.S.

SCHEMATIC DESIGN PLANS
& DETAILS
NOT FOR CONSTRUCTION

DGS

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. # 560

AECOM

City Hall Tower, 16th Floor One East First St.
Reno, NV 89501
Tel: 775-227-9565

Cardno
Shaping the Future

295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

DETAILS

D-6

REVISIONS

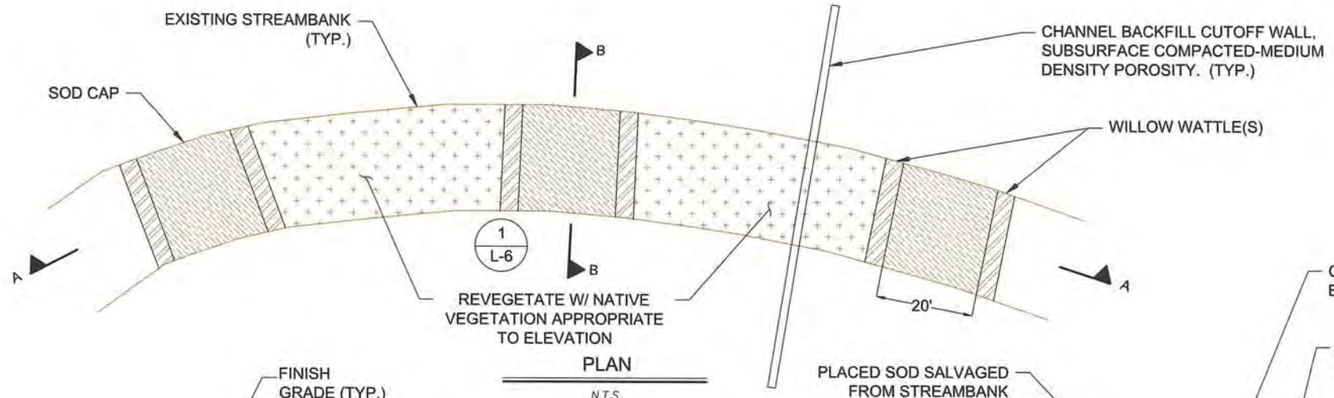
#	description	date

scale:	AS SHOWN
job no.:	00110066.04
drawn by:	CK
checked by:	CM

sheet no.: D-6

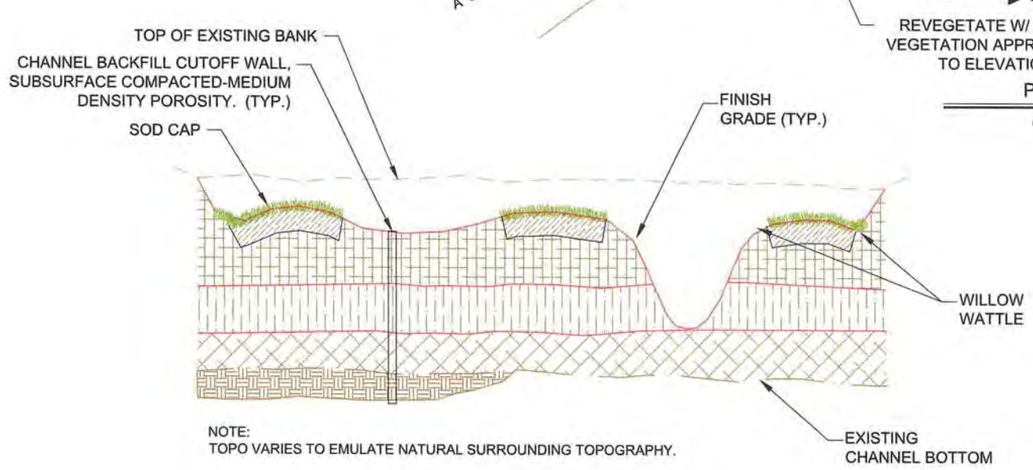
sheet 16 of 25

date: 11/2015



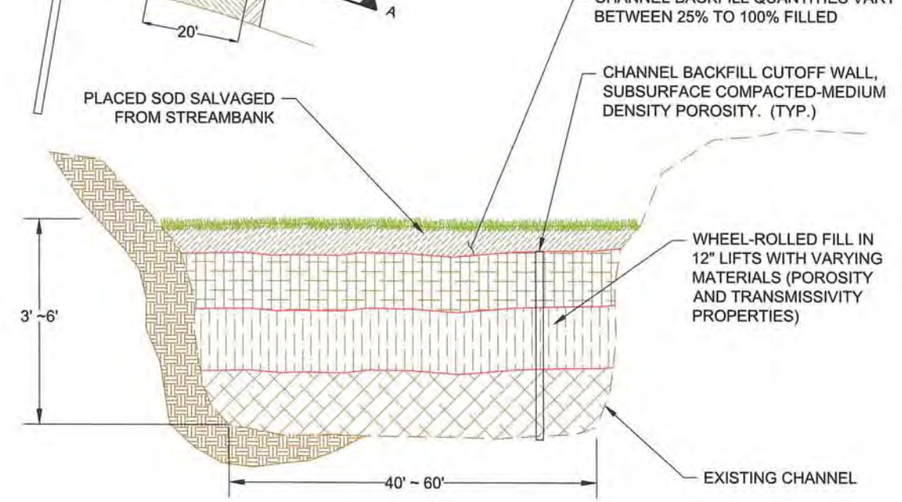
PLAN

N.T.S.



SECTION A-A

N.T.S.

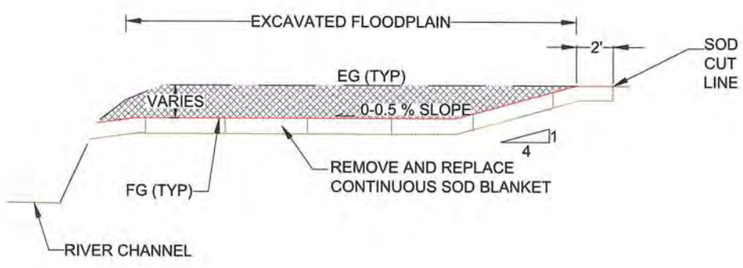


SECTION B-B

N.T.S.

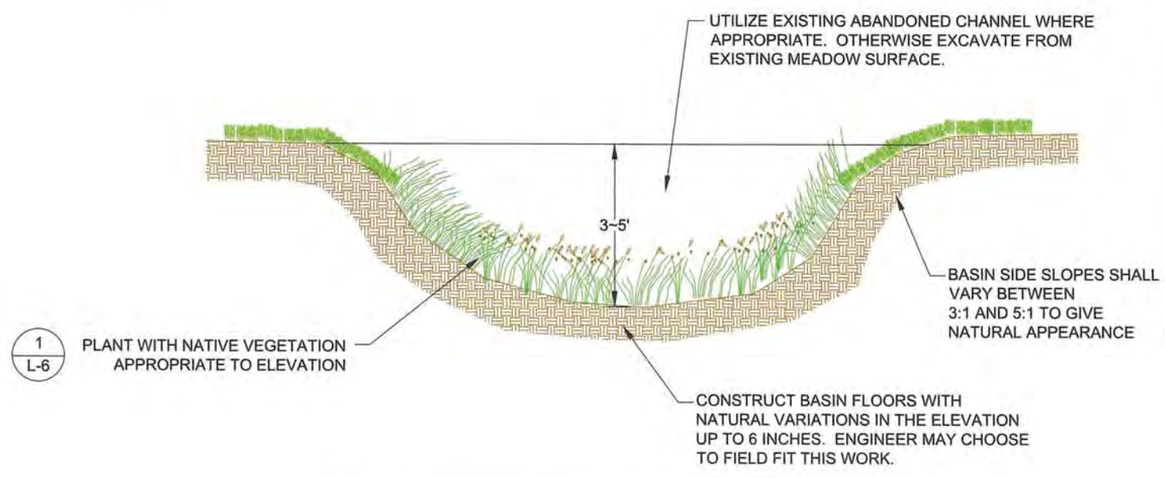
1 / D-7 PARTIAL BACKFILL OF EXISTING CHANNEL

N.T.S.



2 / D-7 FLOODPLAIN CUT

N.T.S.



3 / D-7 STORMWATER TREATMENT BASIN

NTS

SCHEMATIC DESIGN PLANS
& DETAILS
NOT FOR CONSTRUCTION

DGS

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. # 560

AECOM

City Hall Tower, 16th Floor One East First St.
Reno, NV 89501
Tel: 775-227-9565

Cardno
Shaping the Future

295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

DETAILS

D-7

REVISIONS

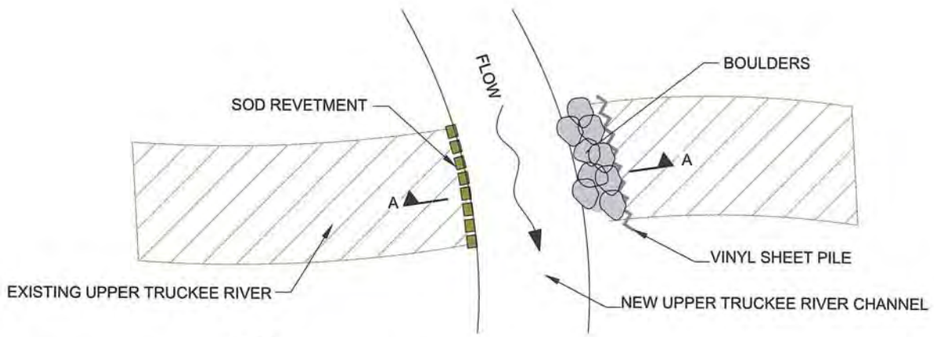
#	description	date

scale:	AS SHOWN
job no.:	00110066.04
drawn by:	CK
checked by:	CM

sheet no.: D-7

sheet 17 of 25

date: 11/2015

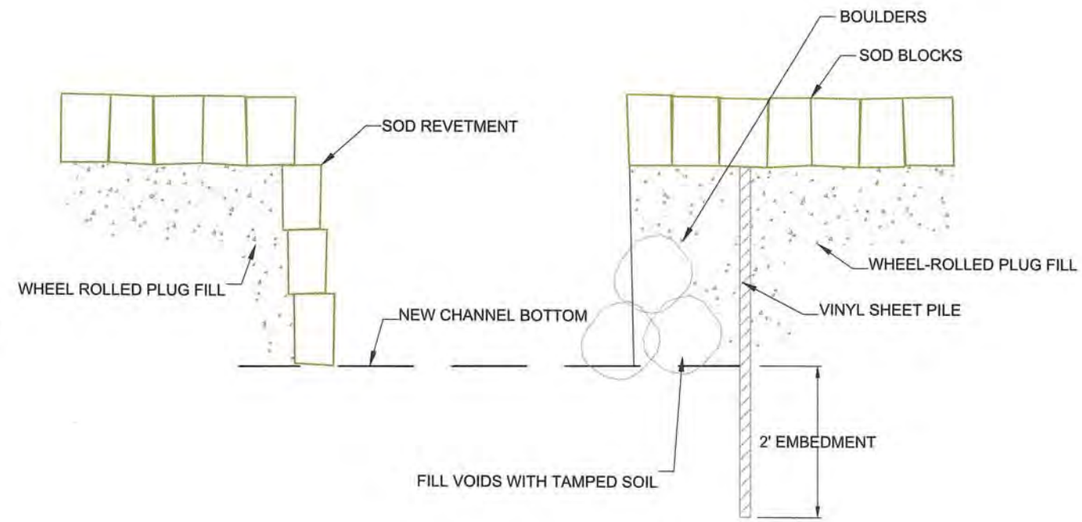


NOTES:

1. BOULDERS SHALL BE ¼ TO ½ TONS EACH.

PLAN

N.T.S.

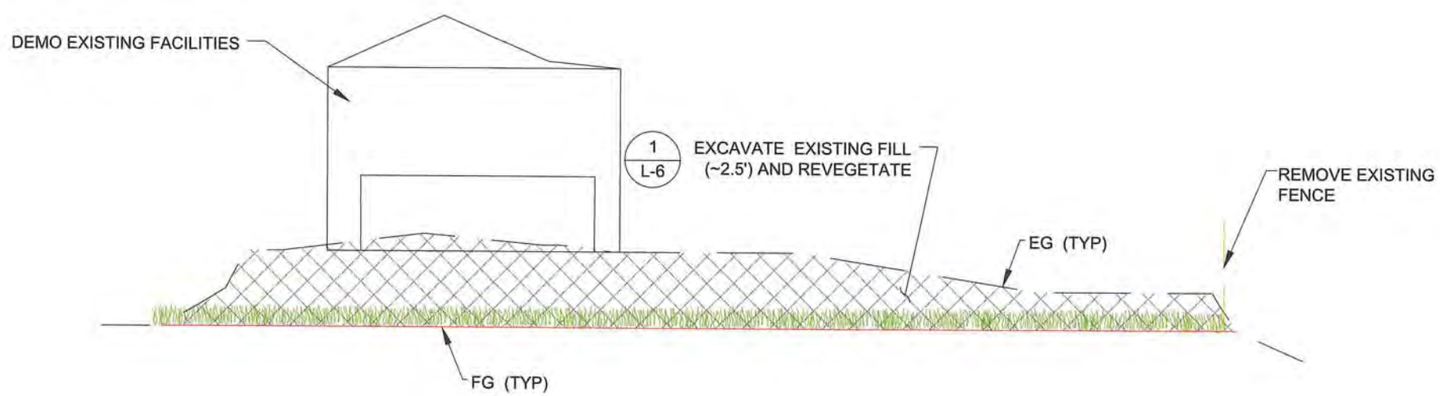


SECTION A-A

N.T.S.

1 / D-8 LATERAL GRADE CONTROL

N.T.S.



2 / D-8 TKPOA YARD RESTORATION

N.T.S.

SCHEMATIC DESIGN PLANS
& DETAILS
NOT FOR CONSTRUCTION

DGS

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. # 560

AECOM

City Hall Tower, 16th Floor One East First St.
Reno, NV 89501
Tel: 775-227-9565

Cardno
Shaping the Future

295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

DETAILS

D-8

REVISIONS

#	description	date

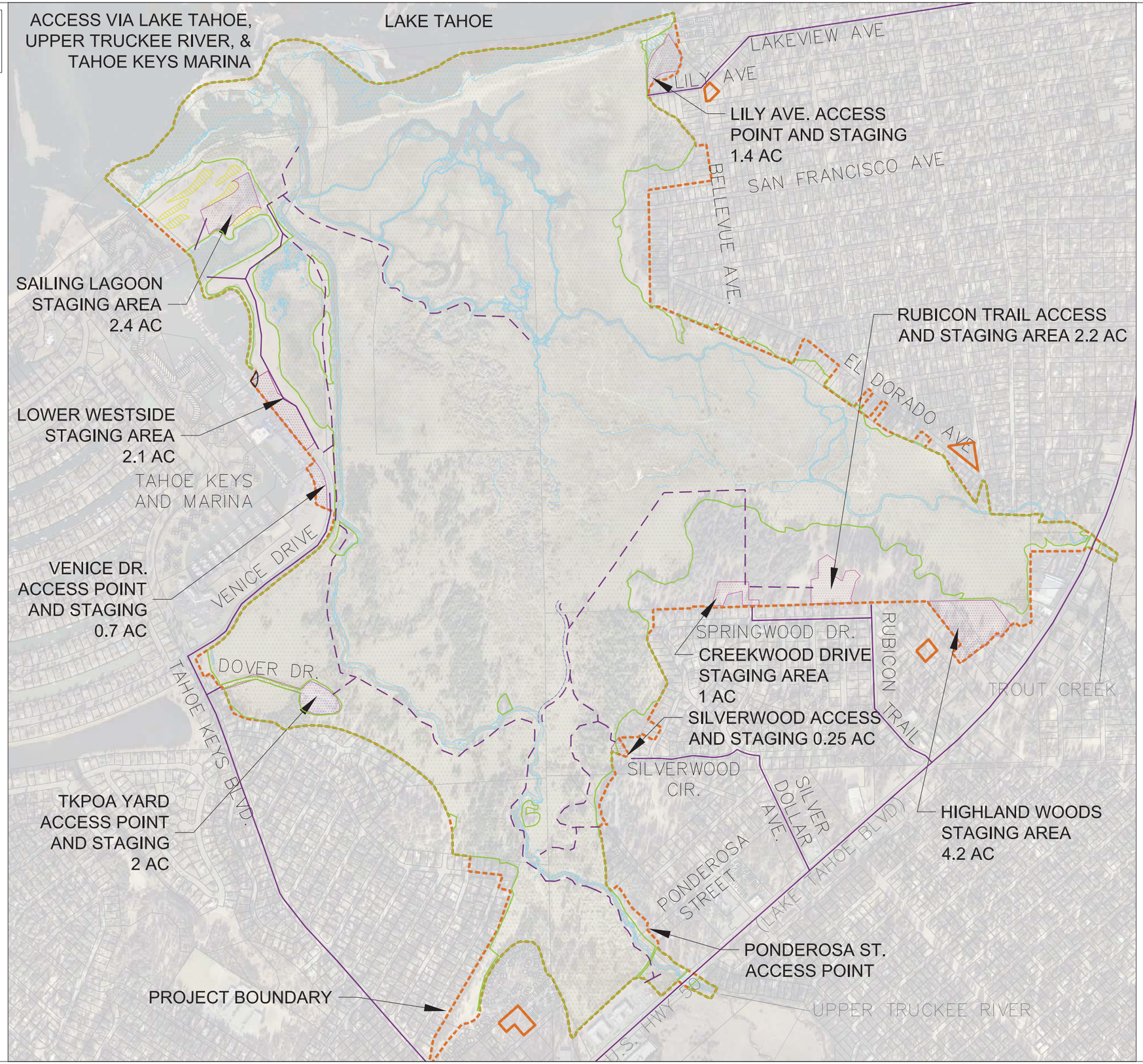
scale:	AS SHOWN
job no.:	00110066.04
drawn by:	CK
checked by:	CM

sheet no.: D-8

sheet 18 of 25

date: 11/2015

SCHEMATIC DESIGN PLANS
& DETAILS
NOT FOR CONSTRUCTION



LEGEND

- WATER'S EDGE
- PROPERTY BOUNDARY
- PROJECT BOUNDARY
- PROPOSED CHANNEL ALIGNMENT
- PROPOSED INTERNAL HAUL ROUTES
- PROPOSED EXTERNAL HAUL ROUTES
- POTENTIAL STORAGE/STAGING ROUTE
- WETLAND DELINEATION
- DUNE RESTORATION AREAS
- LILY LAGOON AREA

DGS
CALIFORNIA TAHOE CONSERVANCY

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. # 560

AECOM
City Hall Tower, 16th Floor One East First St.
Reno, NV 89501
Tel: 775-227-9565

Cardno
Shaping the Future
295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

STORAGE STAGING AND ACCESS PLAN

SS-1

REVISIONS

#	description	date

scale:	AS SHOWN
job no.:	00110066.04
drawn by:	CK
checked by:	CM

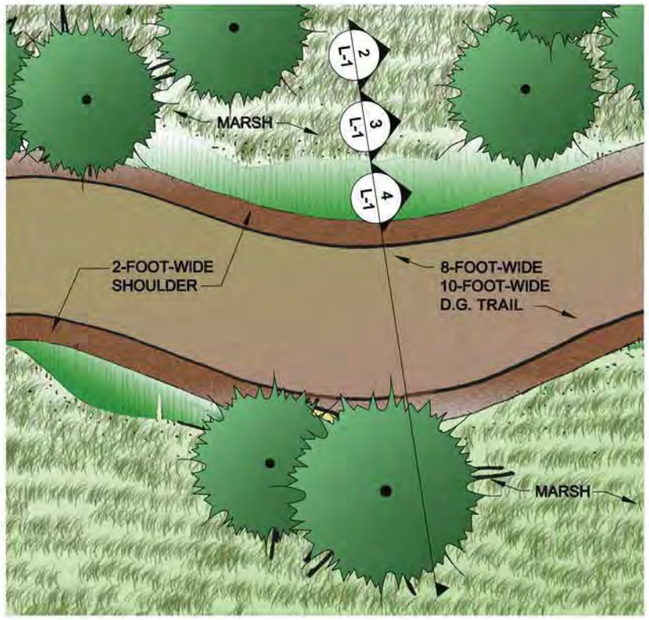
sheet no.: SS-1

sheet 19 of 25

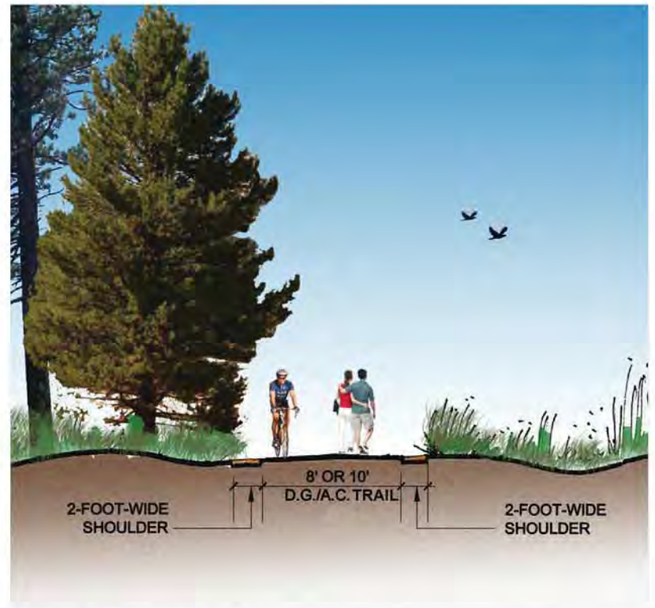
date: 11/2015

0 400 800
SCALE IN FEET

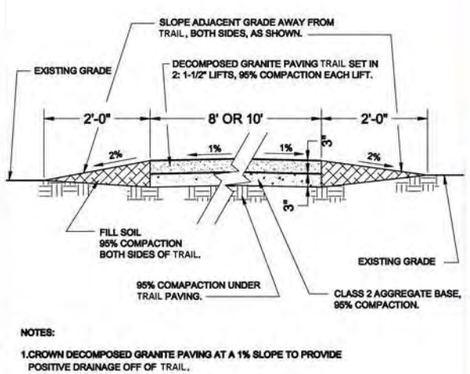
SCHEMATIC DESIGN PLANS
& DETAILS
NOT FOR CONSTRUCTION



1 L-1 **D.G. TRAIL**
SCALE: NTS
PLAN VIEW



2 L-1 **D.G./A.C. TRAIL**
SCALE: NTS
ELEVATION



NOTES:

1.CROWN DECOMPOSED GRANITE PAVING AT A 1% SLOPE TO PROVIDE POSITIVE DRAINAGE OFF OF TRAIL.

3 L-1 **D.G. TRAIL**
SCALE: NTS
SECTION

4 L-1 **D.G. TRAIL**
SCALE: NTS
REPRESENTATIVE EXAMPLE

DGS CALIFORNIA TAHOE CONSERVANCY

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. # 560

AECOM
City Hall Tower, 16th Floor
One East First Street
Reno, NV 89501
Tel: 775.337.9565

Cardno
295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

TRAIL

L-1

REVISIONS

#	description	date

scale:	NOT TO SCALE
job no.:	00110066.04
drawn by:	ML
checked by:	JZ

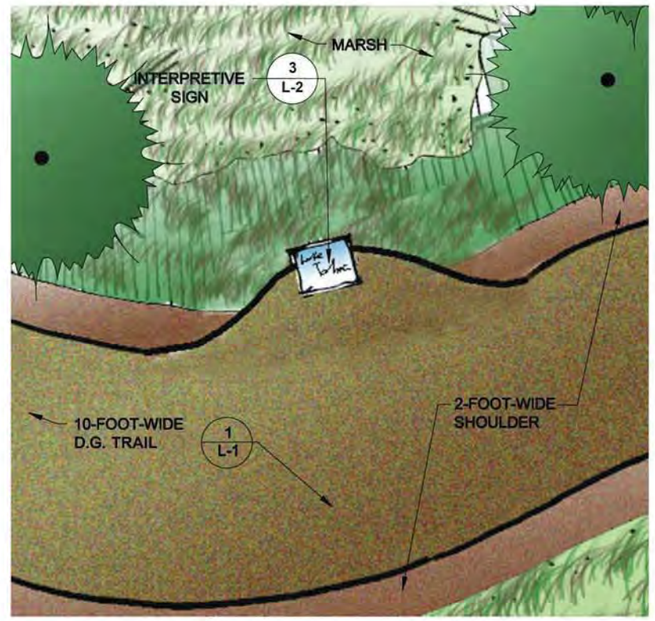
sheet no.: L-1

sheet 20 of 25

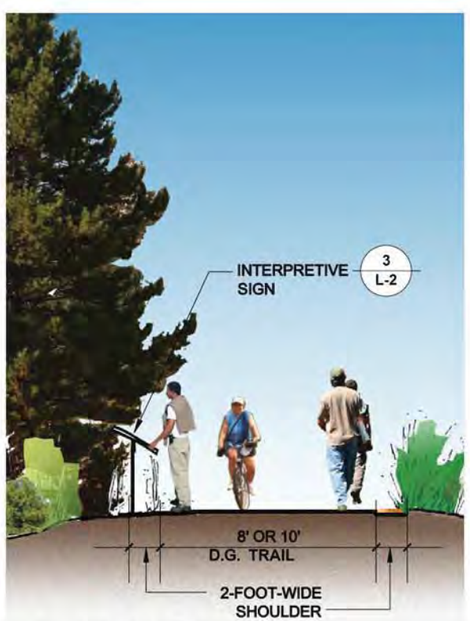
date: 11/2015

P:\2000\00110066.04 Upper Truckee River & Wetlands Restoration\Schematic Design Plans\Graphics\UTR&M Landscape Plans\cad\Conceptual Landscape Details20071205.dwg

SCHEMATIC DESIGN PLANS
& DETAILS
NOT FOR CONSTRUCTION

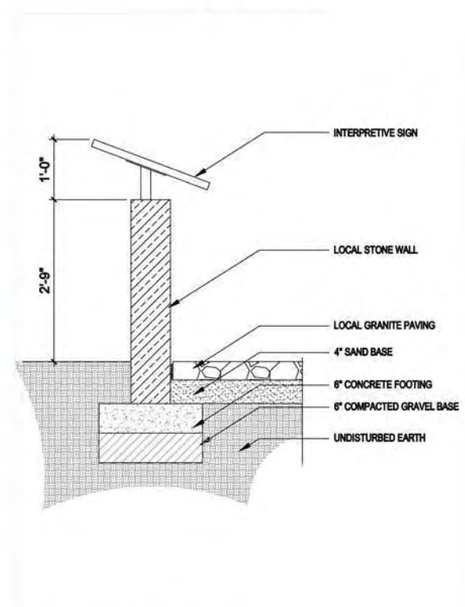


1 L-2 VIEW POINT
SCALE: NTS
PLAN VIEW



2 L-2 VIEW POINT
SCALE: NTS
ELEVATION

3 L-2 VIEW POINT
SCALE: NTS
REPRESENTATIVE EXAMPLE



4 L-2 VIEW POINT
SCALE: NTS
SECTION

DGS
CALIFORNIA TAHOE CONSERVANCY

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. # 560

AECOM
City Hall Tower, 16th Floor
One East First Street
Reno, NV 89501
Tel: 775.337.9565

Cardno
295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

VIEW POINT

L-2

REVISIONS

#	description	date

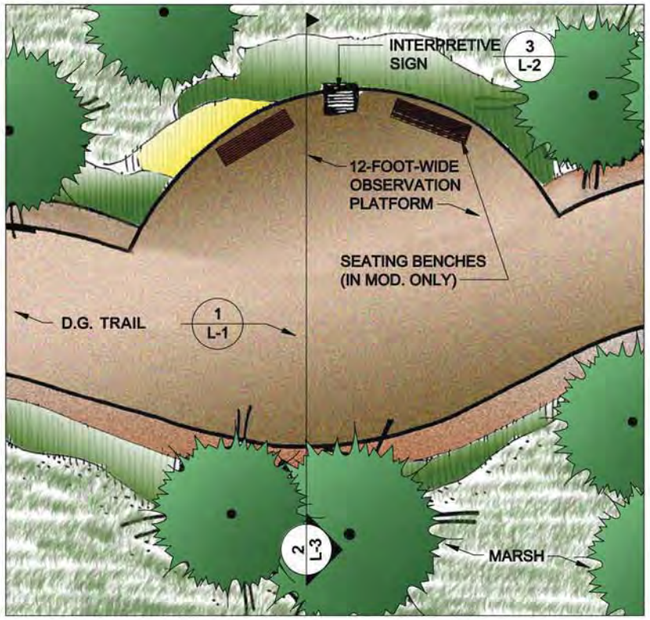
scale:	NOT TO SCALE
job no.:	00110066.04
drawn by:	ML
checked by:	JZ

sheet no.: L-2

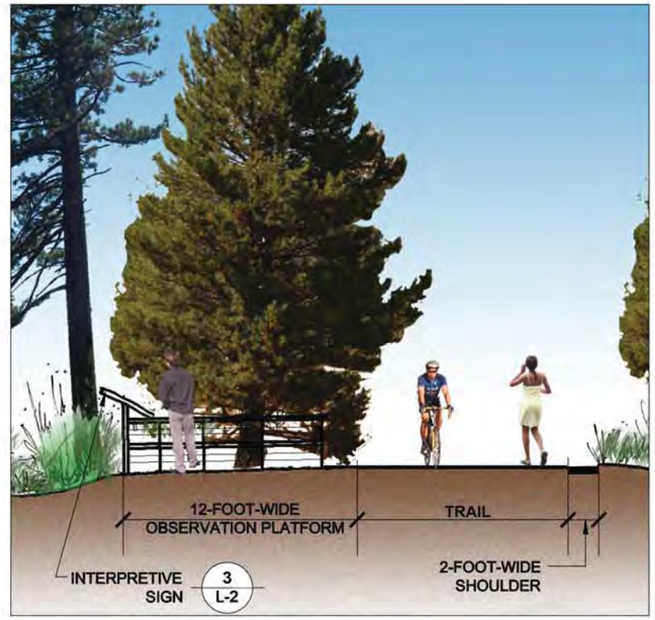
sheet 21 of 25
date: 11/2015

P:\2000\00110066.04 Upper Truckee River & Wetlands Restoration\Schematic Design Plans\Graphics\UTR&M Landscape Plans\cad\Conceptual Landscape Details20071205.dwg

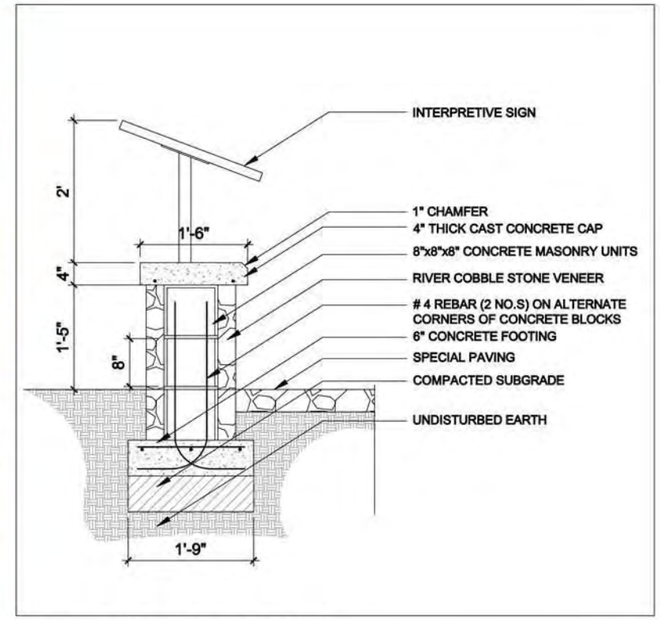
SCHEMATIC DESIGN PLANS
& DETAILS
NOT FOR CONSTRUCTION



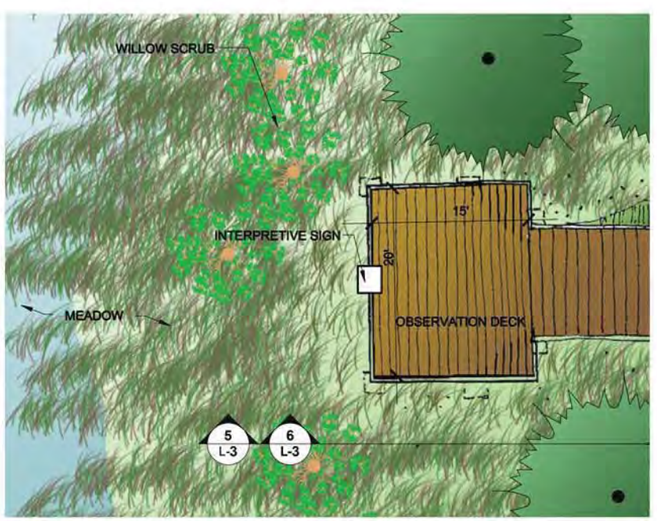
1 L-3 OBSERVATION AREA
SCALE: NTS PLAN VIEW



2 L-3 OBSERVATION AREA
SCALE: NTS PLAN VIEW



3 L-3 OBSERVATION AREA
SCALE: NTS ELEVATION



4 L-3 OBSERVATION AREA
SCALE: NTS ELEVATION

5 L-3 OBSERVATION AREA
SCALE: NTS SECTION

6 L-3 OBSERVATION AREA
SCALE: NTS REPRESENTATIVE EXAMPLE

DGS CALIFORNIA TAHOE CONSERVANCY

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. # 560

AECOM
City Hall Tower, 16th Floor
One East First Street
Reno, NV 89501
Tel: 775.337.9565

Cardno
295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

OBSERVATION AREA TYPE 1

L-3

REVISIONS
description date

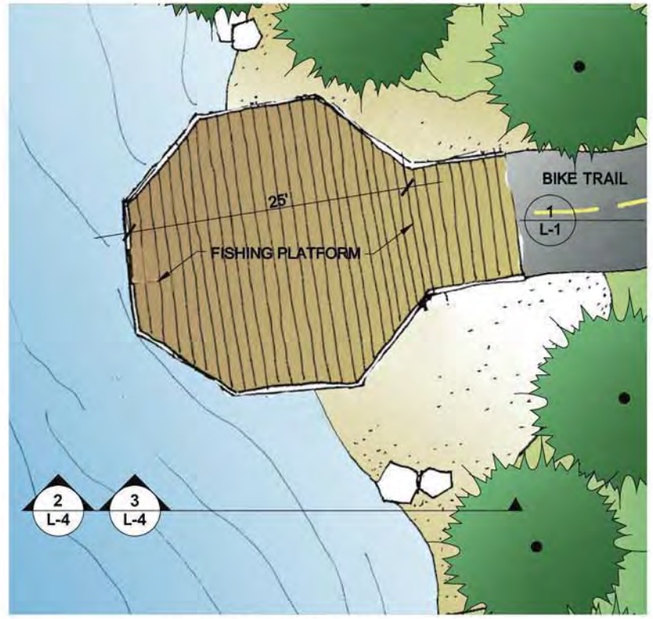
scale: NOT TO SCALE
job no.: 00110066.04
drawn by: ML
checked by: JZ

sheet no.: L-3

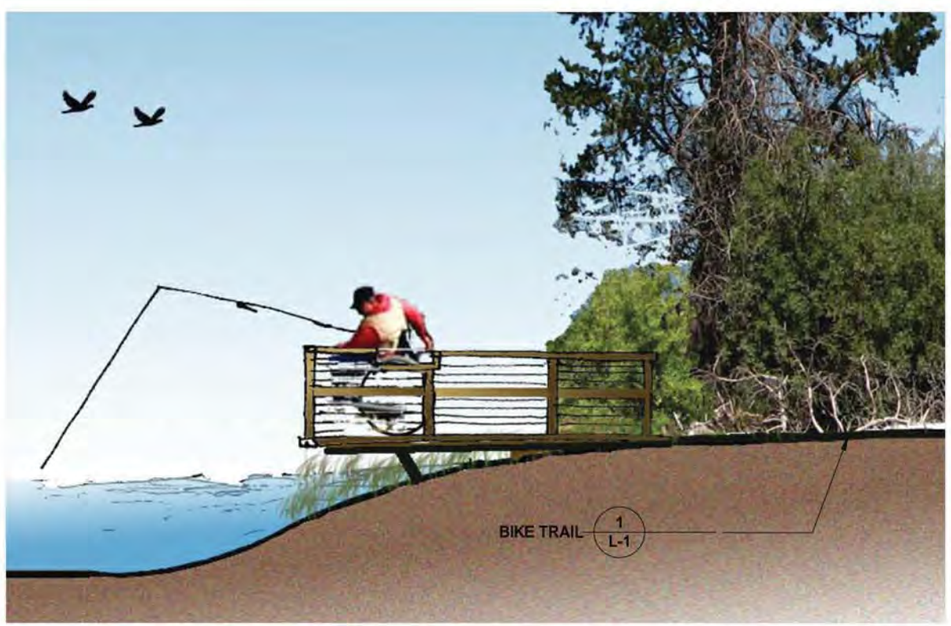
sheet 22 of 25
date: 11/2015

P:\2000\00110066.04 Upper Truckee River & Wetlands Restoration\Schematic Design Plans\Graphics\UTR&M Landscape Plans\cad\Conceptual Landscape Details20071205.dwg

SCHEMATIC DESIGN PLANS
& DETAILS
NOT FOR CONSTRUCTION



1 L-4 FISHING PLATFORM
SCALE: NTS



2 L-4 FISHING PLATFORM
SCALE: NTS
ELEVATION

3 L-4 FISHING PLATFORM
SCALE: NTS
REPRESENTATIVE EXAMPLE

DGS
CALIFORNIA TAHOE CONSERVANCY

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. # 560

AECOM
City Hall Tower, 16th Floor
One East First Street
Reno, NV 89501
Tel: 775.337.9565

Cardno
295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

FISHING PLATFORM

L-4

REVISIONS
description date

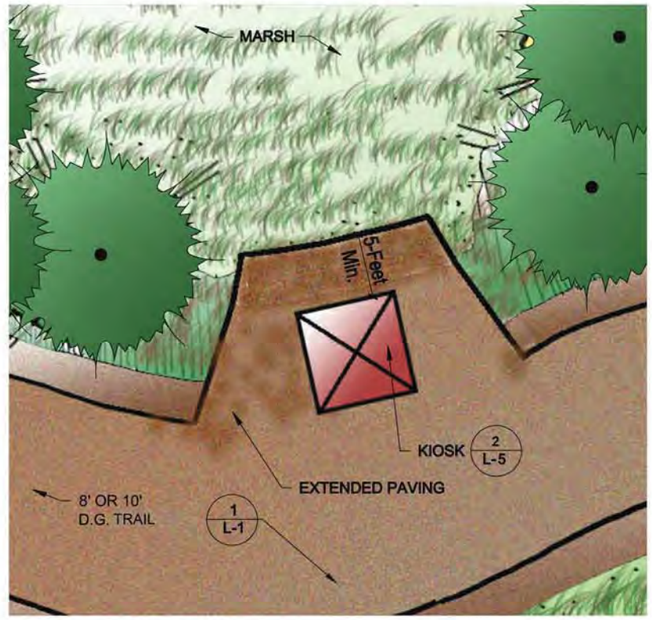
scale: NOT TO SCALE
job no.: 00110066.04
drawn by: ML
checked by: JZ

sheet no.: L-4

sheet 23 of 25
date: 11/2015

P:\2000\00110066.04 Upper Truckee River & Wetlands Restoration\Schematic Design Plans\Graphics\UTR&M Landscape Plans\cad\Conceptual Landscape Details20071205.dwg

SCHEMATIC DESIGN PLANS
& DETAILS
NOT FOR CONSTRUCTION



1 L-5 **KIOSK**
SCALE: NTS PLAN VIEW

2 L-5 **KIOSK**
SCALE: NTS REPRESENTATIVE EXAMPLE

DGS CALIFORNIA TAHOE CONSERVANCY

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. # 560

AECOM
City Hall Tower, 16th Floor
One East First Street
Reno, NV 89501
Tel: 775.337.9565

Cardno
295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

KIOSK

L-5

REVISIONS

#	description	date

scale:	NOT TO SCALE
job no.:	00110066.04
drawn by:	ML
checked by:	JZ

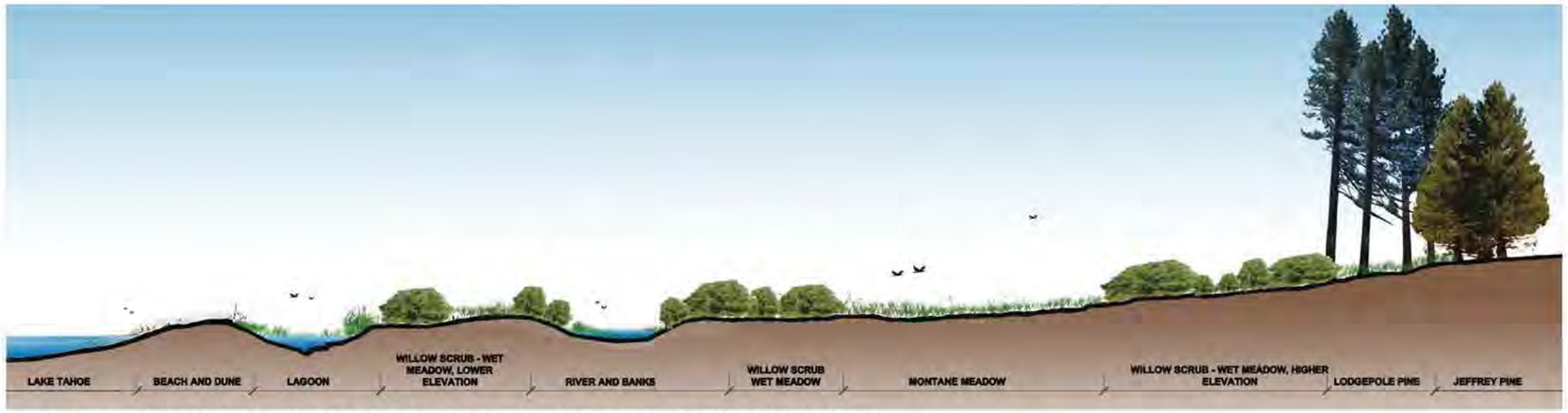
sheet no.: L-5

sheet 24 of 25

date: 11/2015

P:\2000\00110066.04 Upper Truckee River & Wetlands Restoration\Schematic Design Plans\Graphics\UTR&M Landscape Plans\cad\Conceptual Landscape Details20071205.dwg

SCHEMATIC DESIGN PLANS
& DETAILS
NOT FOR CONSTRUCTION



1
L-6

REVEGETATION AND HABITAT RELATIONSHIPS

SCALE: NTS

SECTION

PLANT LIST

Scientific Name	Common Name	Growth Form	Beach and Dune	Lagoon	Willow Scrub-Wet Meadow, Lower Elevation	Riverbanks	Willow Scrub-Wet Meadow, Higher Elevation	Montane Meadow	Lodgepole Pine	Jeffrey Pine
Scirpus acutus	Tule	P		X						
Sparganium emersum ssp. emersum	Emersed bur-reed	P		X						
Typha angustifolium	Cattail	P		X						
Achnatherum occidentalis	Western needlegrass	G							X	X
Agrostis exarata	Spike bentgrass	G				X				
Alopecurus aequalis	Short-awn foxtail	G		X	X					
Bromus carinatus	California brome	G								X
Carex aquatilis	Water Sedge	G	X	X	X		X			
Carex athrostachya	Blister sedge	G					X	X		
Carex nebraskensis	Nebraska sedge	G	X		X	X	X	X	X	X
Carex utriculata	Beaked sedge	G		X	X		X	X		
Deschampsia cespitosa var. cespitosa	Tufted hairgrass	G					X	X		
Deschampsia danthonoides	Annual hairgrass	G	X							
Eleocharis macrostachya	Common spikerush	G		X	X	X				
Elymus glaucus	Blue wildrye	G					X		X	
Elymus trachycaulus var. intermedia	Intermediate Wheatgrass	G						X		
Festuca rubra	Red fescue	G						X		
Glyceria elata	Fowl mannagrass	G		X	X	X				
Hordeum brachyantherum	Meadow barley	G	X					X		
Hordeum jubatum	Foxtail barley	G	X							
Juncus balticus	Wiregrass, Baltic rush	G	X	X	X	X	X			
Juncus effusus	Common rush	G		X	X	X	X			
Juncus ensifolius	Sword-leaved rush	G				X	X			
Juncus nevadensis	Nevada rush	G	X					X		
Juncus orthophyllus	Straight-leaved rush	G						X		
Leymus triticoides	Creeping wildrye	G	X						X	X
Poa secunda var. nevadensis	Bluegrass	G						X	X	X
Scirpus micropus	Small Fruited Bulrush	G				X				
Achillea millefolium	Yarrow	P	X					X	X	X
Arnica chamossonis var. foliosa	Arnica	P	X					X	X	
Aster occidentalis	Western mountain aster	P	X					X	X	X
Fragaria virginiana	Mountain strawberry	P	X					X	X	
Linum lewisii	Flax	P						X		
Lupinus breweri	Brewer's lupine	P								X
Lupinus lepidus var. confertus	Clustered tidy lupine	P	X							X
Lupinus polyphyllus	Big lupine	P					X	X	X	
Oenothera elata var. hookeri	Evening primrose	P	X							

PLANT LIST CONTINUED

Scientific Name	Common Name	Growth Form	Beach and Dune	Lagoon	Willow Scrub-Wet Meadow, Lower Elevation	Riverbanks	Willow Scrub-Wet Meadow, Higher Elevation	Montane Meadow	Lodgepole Pine	Jeffrey Pine
Penstemon rydbergii var. oreocharis	Meadow beardtongue	P						X	X	X
Phacelia hastata	Silverleaf phacelia	P								X
Polygonum bistortoides	Western bisort	P					X	X		
Potentilla glandulosa	Cinquefoil	P					X	X	X	
Potentilla gracilis	Cinquefoil	P	X				X	X	X	
Sidalcea oregana ssp. spicata	Checker mallow	P				X	X	X	X	
Smilacina stellata	False Solomon's seal	P							X	
Stachys ajugoides var. rigida	Hedge nettle	P					X		X	X
Trifolium longipes	Long-stalked clover	P					X	X	X	
Nuphar luteum var. polysepalum	Yellow pond-lily	P		X						
Polygonum amphibium	Water smartweed	P		X	X					
Polygonum hydropiperoides	Waterpepper	P		X	X					
Rumex salicifolius	Willow-leaved dock	P		X	X	X				
Amelanchier alnifolia	Serviceberry	S							X	
Arctostaphylos patula	Greenleaf Manzanita	S								X
Artemisia tridentata var. vaseyana	Mountain sagebrush	S							X	X
Berberis aquifolium var. repens	Oregon grape	S								X
Ceanothus prostratus	Squaw carpet	S								X
Chrysothamnus nauseosus	Rubber rabbitbrush	S								X
Lonicera conjugalis	Double honeysuckle	S								X
Ribes cereum	Wax currant	S								X
Ribes lacustre	Swamp currant	S					X		X	X
Ribes roezlii var. roezlii	Sierra currant	S								X
Rosa woodsii var. ultramontana	Interior rose	S							X	X
Salix exigua	Narrow-leaved willow	S	X			X				
Pinus contorta var. murrayana	Lodgepole pine	T							X	X
Pinus jeffreyi	Jeffrey pine	T								X
Salix geyeriana	Geyer's willow	T		X	X					
Salix lemmonii	Lemmon's willow	T	X	X	X	X	X		X	
Salix lucida var. lasiandra	Shining willow	T		X	X	X				
Salix scouleriana	Scouler's willow	T					X		X	
Total Number of Species			17.0	15.0	14.0	13.0	19.0	22.0	24.0	24.0

KEY

G - GRASS P - PERENNIAL S - SHRUB T - TREE

DGS

UPPER TRUCKEE RIVER AND MARSH RESTORATION PROJECT

E.I.P. # 560

AECOM
City Hall Tower, 16th Floor
One East First Street
Reno, NV 89501
Tel: 775.337.9565

Cardno
295 Highway 50, Suite 1
Zephyr Cove, NV 89448
Tel: 775.588.9069

REVEGETATION SECTION AND PLANT LIST

L-6

REVISIONS

#	description	date

scale: NOT TO SCALE
job no.: 00110066.04
drawn by: ML
checked by: JZ

sheet no.: L-6

sheet 25 of 25
date: 11/2015

P:\2000\00110066.04 Upper Truckee River & Wetlands Restoration\Schematic Design Plans\Graphics\UTR&W Landscape Plans\cad\Conceptual Landscape Details20071205.dwg

APPENDIX B

Detailed Hydraulic Modeling Analysis

Memorandum

To: Interested members of the public

Date: 11/19/15

From: California Tahoe Conservancy

Subject: Upper Truckee River and Marsh Project Flood Modeling

BOARD MEMBERS

LARRY SEVISON, Chair
Placer County

JOHN HOOPER, Vice Chair
Public Member

LYNN SUTER
Public Member

TODD FERRARA
Natural Resources Agency

KAREN FINN
Department of Finance

TOM DAVIS
City of South Lake Tahoe

SUE NOVASEL
El Dorado County

JEFF MARSOLAIS
U.S. Forest Service (ex-officio)

PATRICK WRIGHT
Executive Director

Please find the attached technical memorandum, which details recent updates to the flood modeling for the California Tahoe Conservancy's (Conservancy) Upper Truckee River and Marsh Restoration Project (Project). The memo details recent updates to the flood modeling for the Conservancy's Upper Truckee River and Marsh Restoration Project (Project). The Conservancy and its consultants first completed flood modeling in 2005 to assess the potential flood effects from Project Conceptual Alternatives, and the Conservancy used these 2005 modeling results in the Project draft environmental document. We have completed another, more detailed and extensive modeling effort to verify the information presented in the draft environmental document and ensure the recommended alternative will not result in adverse flood impacts. While the particular methods and models differed, both modeling efforts demonstrate that the Project will not increase flood hazards to adjacent developed areas. The following paragraphs provide additional background and context, along with a summary of the recent flood modeling study with references to specific sections of the technical memorandum.

Flooding of areas adjacent to river channels is a natural process, and large winter precipitation flood events have historically inundated the Marsh and several adjacent developed areas. The Federal Emergency Management Agency (FEMA) and City of South Lake Tahoe (City) designated floodplain extends across the Project site and into some areas of the adjacent residential neighborhoods. In January 1997 a multi-day rain-on-snow event resulted in very high flow rates on the Upper Truckee River (UTR). While flow estimates for that flood varied due to damage incurred at the United States Geological Survey gage, the estimated range of the 1997 peak flow is comparable to the statistical 100-year event analyzed by FEMA in their subsequent floodplain mapping studies. Conservancy staff visited the Tahoe Island and Sky Meadows neighborhoods during the 1997 flood and documented the conditions through various photos, some of which are included in the attached memo. Conservancy consultants visited several of these same areas in 2000 and surveyed the elevation of 1997 flood indicators at representative locations. These data points have been useful for later calibration of the flood models.

1061 Third Street, South Lake Tahoe, California 96150
530-542-5580 *fax:* **530-542-5567** *e-mail:* **info@tahoe.ca.gov** *web:* **www.tahoe.ca.gov**

The Conservancy contracted for technical assistance from Cardno Inc. (Cardno) to perform the updated Project flood modeling. Cardno developed two-dimensional hydraulic models for the existing and proposed conditions, using the FEMA approved XP Solution's Stormwater &Wastewater Management Model (XPSWMM model). The Conservancy and Cardno selected this model because it uses detailed topographic and site information, and also because it successfully represents the complex flow patterns in the shared floodplain of the UTR and Trout Creek, and surrounding urban areas. As detailed in the attached technical memorandum, the Cardno modeling effort includes numerous conservative approaches and assumptions to replicate the "worst case" flooding scenario. The Conservancy requested this approach to reduce uncertainties while providing the highest level of technical assurance that the Project will not adversely impact nearby private properties.

Cardno prepared the attached technical memorandum, which documents the details of the model, including the model inputs, outputs and processing, along with the model results for the existing and proposed conditions. Cardno modeled the 10 and 100-year events, based on parameters and guidance from a recent 2012 FEMA modeling effort.

The modeled 100-year flood extent under the existing condition scenario aligns very closely to the mapped FEMA regulatory 100-year floodplain, and the surveyed flood indicators from the 1997 flood event. The proposed Project does not impact the 100-year flood extent and elevations on the private properties surrounding the Marsh. Pages 4-7 and 6-6 of the technical document display the 100-year model results under the existing and proposed conditions, and Figures 7-2 and 7-3 show the net change in flood depths in the proposed condition. Some areas in the center of the Marsh and near the barrier beach demonstrate increased flood depths, which is consistent with the Project objectives to improve wetness and habitat in these areas. The model results on these figures show that the private and residential properties adjacent to the Marsh do not experience increased floodwaters as a result of the Project.

The UTR watershed is the largest contributor of stream-borne sediment into Lake Tahoe and it exhibits degraded terrestrial and aquatic habitats due to historic land-use impacts. The Project will provide regionally significant benefits to wildlife habitat and water quality, and it will build upon the cumulative benefits of other nearby restoration projects. The Project will improve the natural processes and functions of the UTR, including the beneficial overbank inundation processes in the middle of the marsh, without increasing flood hazards to neighboring private properties.

For questions regarding the flood memorandum or the Project, please contact:

Stuart Roll	530-543-6031	stuart.roll@tahoe.ca.gov or,
Scott Carroll	530-543-6062	scott.carroll@tahoe.ca.gov

Upper Truckee River and Marsh Restoration Project – Updated Flood Modeling Memorandum

Detailed Hydraulic Modeling Analysis

3022196, Amendment 13

Cardno
Shaping the Future

Document Information

Prepared for	California Tahoe Conservancy
Project Name	Upper Truckee Marsh Restoration
Project Number	3022196, Amendment 13
Project Manager	Virginia Mahacek
Date	November 18, 2015

Prepared for:

California Tahoe Conservancy
1061 3rd Street, South Lake Tahoe, CA 96150
Tel: 530.542.5580

Prepared by:

Cardno, Inc.
295 US 50, Suite 1 / PO Box 1533 / Zephyr Cove, NV 89448
Tel: 775.588.9069

This Page Intentionally Left Blank

Table of Contents

1 Synopsis 1-1

2 Background 2-1

Project Context 2-1
Purpose and Scope 2-1
Limitations 2-1
FEMA Framework 2-2

3 Hydraulic Model 3-1

XPSWMM Model Input Parameters 3-1
Topography 3-1
Boundary/Flow Conditions 3-2
XPSWMM Model Output Parameters 3-2
XPSWMM Output Interpretation/Post-Processing 3-3

4 Existing Conditions 4-1

Existing Conditions Model Input Parameters 4-2
Topography 4-2
Boundary/Flow Conditions 4-3
Existing Conditions Model Output: 100-Year Event 4-6
Water Surface Elevations 4-6
Water Depth 4-6
Flow Direction and Velocity 4-7
Existing Conditions Model Output: 10-Year Event 4-8
Water Depth 4-8
Flow Direction and Velocity 4-9

5 Existing Conditions Discussion 5-1

6 Preferred Alternative Conditions 6-1

Preferred Alternative Model Input Parameters 6-1
Topography 6-1
Boundary/Flow Conditions 6-3
Preferred Alternative Model Output: 100-Year Event 6-5
Water surface elevations 6-5
Water Depth 6-6
Flow Direction and Velocity 6-7
Preferred Alternative Condition Model Output: 10-Year Event 6-7
Water Depth 6-7
Flow Direction and Velocity 6-9

7 Preferred Alternative Discussion 7-1

Existing versus Proposed 100-year Flood Conditions 7-1
100-year Flow WSEL Changes with the Preferred Alternative 7-1

8 References Cited 8-1

9 List of Preparers 9-1

Tables

Table 4-1: Land Cover Types and Assigned Model Roughness Coefficients 4-3

Table 4-2: Upper Truckee River and Trout Creek Peak Flows (cfs) 4-3

Figures

Figure 2-1: Effective 2012 FEMA Flood Insurance Rate Map Boundaries in the Project Vicinity 2-3

Figure 4-1: Project Area, Model Area, Inactive Areas, Head Boundary, and Flow Boundaries 4-1

Figure 4-2: Land Use/Cover Types as of 2014 as Roughness Polygons for the Existing Condition 4-4

Figure 4-3: Reported Historic Neighborhood Flooding in the Project Vicinity 4-5

Figure 4-4: Existing Condition 100-Year Flood Simulated Water Surface Elevations 4-6

Figure 4-5: Existing Condition 100-Year Flood Simulated Water Depths 4-7

Figure 4-6: Existing Condition 100-Year Flood Simulated Flow Directions and Velocities 4-8

Figure 4-7: Existing Condition 10-Year Flood Simulated Water Depths 4-9

Figure 4-8: Existing Condition 10-Year Flood Simulated Flow Directions and Velocities 4-10

Figure 5-1: Representative 1997 Flood Conditions in Tahoe Island 5-2

Figure 5-2: Representative 1997 Flood Conditions in Sky Meadows 5-3

Figure 5-3: Comparison of 1997 Flood Indicators Surveyed Elevations with 2015 Modeled 100-year Water Surface Elevations: Tahoe Island 5-4

Figure 5-4: Comparison of 1997 Flood Indicators Surveyed Elevations with 2015 Modeled 100-year Water Surface Elevations: Sky Meadows 5-5

Figure 6-1: Preferred Alternative Conceptual Design Features 6-2

Figure 6-2: Land Use/Cover Types Modified as Roughness Polygons for the Preferred Alternative Condition 6-4

Figure 6-3: Preferred Alternative Condition 100-Year Flood Simulated Water Surface Elevations 6-5

Figure 6-4: Preferred Alternative Condition 100-Year Flood Simulated Water Depths 6-6

Figure 6-5: Preferred Alternative 100-Year Flood Simulated Flow Directions and Velocities 6-8

Figure 6-6: Preferred Alternative 10-Year Flood Simulated Water Depths 6-9

Figure 6-7: Preferred Alternative 10-Year Flood Simulated Flow Direction and Velocities 6-10

Figure 7-1: 100-Year Flood WSELs under the Preferred Alternative and Existing Condition Scenarios 7-2

Figure 7-2: 100-Year Flood WSEL Increases with Preferred Alternative 7-3

Figure 7-3: 100-Year Flood WSEL Decreases with Preferred Alternative 7-4

1 Synopsis

This technical memo summaries the purpose, assumptions, input data, methods, and results of two-dimensional (2D) hydraulic flood modeling performed by Cardno, Inc. (Cardno) to simulate the existing and proposed (Preferred Alternative) conditions for the California Tahoe Conservancy's Upper Truckee River and Marsh Restoration Project (Project). This memo includes background information as context to facilitate reading it as a discrete report, but it is intended as a companion and appendix to the Final EIR/EIS/EIS for the Project, which includes substantial additional relevant information. The memo also integrates and cross references data from prior Project-related studies completed during several years of planning, as cited within the following text where appropriate.

Cardno applied the XPSWMM ('Stormwater & Wastewater Management Model') developed by XP solutions (XP solutions 2015) to the Project analysis. XPSWMM is a Federal Emergency Management Agency (FEMA) approved hydraulic model and selected for this Project in particular to represent the complex 2D flow patterns in the shared floodplain of the Upper Truckee River and Trout Creek, and surrounding urban areas and to take advantage of recently acquired detailed topographic information (LiDAR and field survey).

The simulations included both the 100-year (1 percent annual chance) peak flow and the 10-year event. The 100-year event represents the regulated floodplain and the 10-year event is included since some residential areas along the margins of the Project boundary have experienced flooding during flows smaller than the 100-year event. The selected model input flows match the 2012 FEMA Flood Insurance Study (FIS) for both the Upper Truckee River and Trout Creek. Assumptions consistent with FEMA protocols were made regarding the model head boundary (starting lake elevation of 6229.1 feet), roughness coefficients, and floodplain boundary mapping protocols. Conservative assumptions regarding the duration of peak flows and saturated antecedent soils were made for both the existing and proposed conditions.

The existing conditions model output for the 100-year flow was compared with observed flood data from the flood-of-record (1997), which has an estimated peak flow similar to the FEMA 100-year peak flow. Surveyed elevations of the 1997 flood indicators in the adjacent neighborhood and photographs taken during the flood help substantiate the existing conditions model performance. Results of the 10-year existing conditions simulation were also consistent with historical observations and reports of neighborhood nuisance or hazardous flooding.

The preferred alternative conditions 2D XPSWMM model was developed by modifying the existing conditions model to reflect the topographic and roughness changes associated with the proposed Project. However, a conservative, worst-case scenario was emphasized. All topographic and vegetation changes within the State-owned portions of the study area, which are desired, essential, and definite elements to be implemented, are included in the model. However, the topographic and vegetation changes proposed for private lands which require separate approvals and agreements were not included in the model. This is a conservative assumption, since the topographic changes proposed on private land are of a nature (i.e., lowering terraces to form floodplains; net cut) that would provide additional flood conveyance. Additionally, the proposed vegetation changes on private land would reduce roughness and better direct flood flow paths. It is expected that if some or all of these "optional" elements (i.e., those on private lands) are included in the Project, flood conditions would be improved. Therefore, modeling only the state land actions is a worst-case analysis. If the additional actions were to occur, the proposed condition results would be neutral or beneficial relative to the results reported herein.

Comparison of the proposed versus existing conditions water surface elevations, water depths, and flow vectors and velocities for the 100-year flood demonstrates that the Project can achieve the desired modifications in hydraulics and ecosystem benefits to the channel and across the marsh without increasing flood hazards to surrounding developed private land.

2 Background

Project Context

Restoration planning for the Upper Truckee River and Marsh Restoration Project (Project) began in the early 1990s and the initial phase of wetland restoration within the study area, the Lower West Side Restoration Project (LWS Project), was completed by the California Tahoe Conservancy (Conservancy) in 2002. The Conservancy has performed numerous technical and planning steps to develop the Project over a span of nearly 20 years, including several analyses specifically addressing flooding processes and flood hazards. The most recent prior flood-related studies include: assessing historical hydrology and hydraulic processes and functions and describing direct human disturbances to the river channel(s) and floodplain (Conservancy and DGS 2003); reviewing and surveying modern observations of flooding in adjacent neighborhoods; conducting one-dimensional hydraulic HEC-RAS modeling for a wide range of flows to craft and compare conceptual restoration alternatives (Conservancy and DGS 2005); and, analyzing the impacts of the Action and No-Action Alternatives in the draft EIR/EIS/EIS (Conservancy and Others 2013).

Purpose and Scope

The flood analyses reported herein have been performed by Cardno under our Upper Truckee River and Marsh Restoration Project 3022196, Amendment 13 Scope of Services, to develop an existing and proposed two dimensional hydraulic model to simulate flooding events and ensure that the proposed condition model will meet the Project's objectives to avoid increasing flood hazards and comply with the City and FEMA regulations. This study was performed during preparation of the final environmental impact report/environmental impact statement/environmental impact statement (Final EIR/EIS/EIS) to provide robust analysis of the flooding conditions and refine the Preferred Alternative description.

The model development and results underwent an internal quality control review by a qualified P.E. hydraulic engineer that is a CFM (Certified Floodplain Manager) and was not directly engaged in building the model.

The modeling efforts described herein focused on providing quantitative, spatially detailed information regarding the worst-case flooding scenario(s) of most importance for assessing flood hazards (i.e., the 100-year runoff event with a high lake level) as part of environmental impact assessment. Modeling of the 10-year event was also included in the assessment since some of the adjoining neighborhoods have historically experienced flooding under streamflows less than the 100-year event. Simulation of both the 100-year and 10-year conditions provides the opportunity to verify that the desired re-establishment of frequent overbank flows and inundation in the middle of the marsh could be achieved under the Preferred Alternative without any adverse change to flood hazards in adjacent developed areas.

Limitations

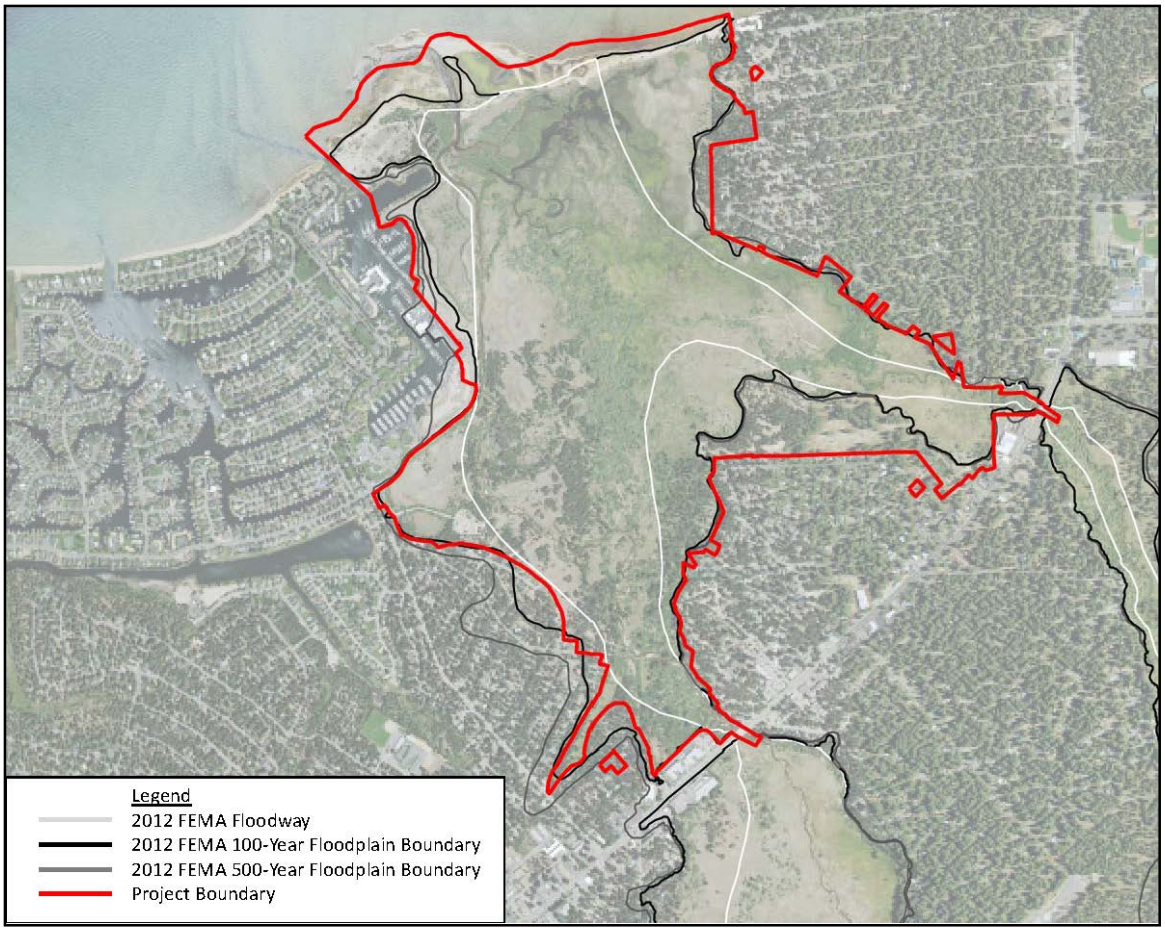
The modeling scenarios in Cardno's authorized scope of work did not focus on combinations of lake level and streamflow that might be used to simulate conditions of importance to some final design topics that depend on the details of 'in-channel' conditions and low to normal streamflows (e.g., 2-year events or seasonal low flow conditions). The 2D model constructed in this study can be revised during final design to assist with such additional channel design decisions. However, use of the model scenarios and results presented herein should be limited to assessing performance and final design elements related to overbanking conditions and flood hazards.

FEMA Framework

The Federal Emergency Management Agency (FEMA) issues Flood Insurance Rate Maps (FIRMs) used by the City of South Lake Tahoe (CSLT) to implement floodplain management policies and regulations in the City, including the project vicinity. Since Project planning began, the FEMA FIRMs for the City and surrounding unincorporated areas of El Dorado County have been revised several times to adjust for various land use changes in and around the study area, and updates in topographic or hydrologic data. For example, improvements to the U.S. 50 bridges at the Upper Truckee River and Trout Creek crossings in the mid-1990s, urban build-out in the watershed, record peak flood events (1997), and restoration of the LWS wetlands occurred during the decades since the initial FEMA maps were issued in 1978.

A 2008 FEMA update compiled previous data and converted the prior data to a digital format. Base topography from several sources (including the 2002 one-foot-interval Light Detection and Ranging [LiDAR] from the City) was integrated in 2010 modeling. At that time, the vertical datum for topography and the water surface elevations was updated to North American Vertical Datum (NAVD) 88. The most recent Flood Insurance Study (FIS), revised April 3, 2012, indicates that updated hydrology was applied in a one-dimensional (1D) HEC-RAS hydraulic model: 100-year peak flows of 7,376 cubic feet per second (cfs) on the Upper Truckee River and 948 cfs on Trout Creek, respectively (FEMA 2012). The HEC-RAS modeled water surface elevations were extrapolated by FEMA to define floodplain boundaries using two sources of one-foot contours, supplemented with USGS 7.5-minute topographic quadrangle map contours (FEMA 2012).

The 2012 FIS and associated FIRMs (FEMA 2012b and 2012c) delineate the effective regulatory floodplain for the Project vicinity at the time of our present analyses. The FIRM panels are reproduced in the Final EIR/EIS/EIS and can be accessed on the web at FEMA Flood Map Service Center .The digital FIRM map information is overlain on the Project base aerial with the Project Boundary in Figure 2-1 for reference. Nearly all of the Project study area is within the boundary of the effective FEMA 100-year floodplain, except the upland areas adjacent to the Highland Woods subdivision, between Cove East Beach and the Sailing Lagoon, and along the margins of the Tahoe Keys Marina. The Upper Truckee River and Trout Creek channels, adjacent areas, and the shared floodplain in the central meadow are in the designated floodway. Some residential areas adjacent to the study area, including portions of Tahoe Island (from the northern intersection of Tahoe Keys Boulevard and Michael Drive east along Colorado Court to the southeast end of Colorado Avenue and including the corner of Michael Drive east of Oregon Avenue) and several lots in Sky Meadows are within the FEMA floodplain fringe west of the Upper Truckee River. A few lots in Al Tahoe (along El Dorado Avenue, Edgewood Circle, and the west end of Lily Avenue) are on the edge of the regulatory floodplain east of Trout Creek.



Source: Cardno 2015, incorporating FEMA 2012b and c (digital FIRM panels 0386F and 0387F).

Figure 2-1: Effective 2012 FEMA Flood Insurance Rate Map Boundaries in the Project Vicinity

This Page Intentionally Left Blank

3 Hydraulic Model

The hydraulic model selected for this analysis is XPSWMM (XP Stormwater and Wastewater Management Model), a hydrodynamic modeling software program that simulates two-dimensional flow and provides water elevation, depth and velocity output. XPSWMM is EPA tested and FEMA approved (FEMA Hydraulic Numerical Models Meeting the Minimum Requirement of National Flood Insurance Program). XPSWMM was selected for this Project to minimize inherent uncertainties associated with computer models such as parameter uncertainty and numerical uncertainty. Because it is a two-dimensional (2D) platform, XPSWMM is able to better simulate input parameters such as topography and roughness. For example, instead of using a one-dimensional (1D) model that "reads" the topography and roughness values at a limited number of cross-sections and interpolates the conditions in-between the cross-sections, the 2D XPSWMM model "reads" the topography and roughness values at thousands of grid cells that comprise the input topographic surface. To reduce numerical uncertainty, XPSWMM's simulation engine uses a self-modifying time-step that continually adjusts to ensure improved stability and flow balance. In terms of numeric output, 1D HEC-RAS models produce results for limited points along each cross-section (e.g., left overbank, channel, and right overbank), while XPSWMM produces results along the edges of each cell throughout the two dimensional grid. As a result, it is generally acknowledged that 1D model results cannot be directly compared to 2D model results, but that 2D model results are more detailed and achieve a higher level of model certainty than 1D models. The XPSWMM model input and output parameters are described in general in the following section. The purpose of this overview is to give the reader a clear understanding of the methods and variables that are utilized to represent conditions for any model run using XPSWMM. In Section 4, model input and output parameters are described as they are applied to simulate the existing conditions, and in Section 5 model input and output parameters are described as they represent the proposed (Preferred Alternative) condition. The same general methods and approaches for input parameters and model scenarios were applied for the existing and proposed conditions, as further explained in Sections 4 and 5.

XPSWMM Model Input Parameters

Topography

DTM

Elevation data is integrated into XPSWMM via a Digital Terrain Model (DTM) in the form of a Triangular Irregular Network (TIN). DTMs can be "built" in XPSWMM from several types of data including: point files, ESRI grid files, or contour shape files.

Grid Properties

Grid polygons in XPSWMM define the hydraulically active area(s) of the DTM and the level of detail of the topography. The user-defined grid polygon consists of cells with equal horizontal and vertical lengths in a uniform orientation. Hydraulic calculations utilize the elevations at the center and mid-sides of each cell: water level is calculated at the center of the cell, and velocity is calculated at the mid-sides of the cell. Although "small" grid sizes allow the model to read and generate information at a greater level of detail, cell sizes smaller than six square feet can cause model instability.

Flow constrictions

Flow constrictions allow the user to define points, lines, and polygons that modify the flow width, percent blockage, and energy losses within an area of the grid. Flow constrictions are used to simulate the effects of bridges or other known obstructions across a waterway.

Inactive areas

Inactive polygons define the areas where two-dimensional flow cannot occur. Examples of inactive areas include houses, buildings, or other structures that would not be overtopped during simulated flows (the model will simulate the water surrounding any isolated inactive polygons and be 'higher' than if the inactive polygons are not defined). The inclusion of known inactive areas in a two-dimensional model is an iterative process and only applied in the areas that may be subject to flow, not necessarily throughout the model boundary. To the degree that calibration data and observations allow, including inactive areas in a model facilitates a more realistic representation of how flows route through the system.

Land use polygons

Land use polygons allow the user to define distinct infiltration and roughness characteristics for different areas in the model. Parameters such as soil type, percent impervious, and Manning's n can be specified for each land use polygon. Manning's n is a roughness coefficient representing the resistance to flow, and used in the Manning's equation for calculating flow in open channels. It is an empirically derived value that is dependent on many factors, including channel bed and floodplain surface materials and sizes, vegetation type, density, seasonal conditions. Roughness also varies with water depth relative to the roughness of the channel and floodplain surfaces. Standard scientific literature and engineering references, field observations, as well as professional judgment are all applied when selecting Manning's n value ranges for model input.

Boundary/Flow Conditions

Head boundary

A head boundary is a polyline representing the elevation of the water surface (head) at an edge of the model grid polygon, to indicate starting water surfaces or controlling water surfaces at the downstream end or other margins of a model boundary.

Flow boundaries/Input Flows

Time-series flow data (such as the design flow or hydrograph to be modeled) can be entered either via a one-dimensional node or a two-dimensional polyline. 1D/2D interface polylines allow flows to be transferred from one-dimensional features (nodes) to the two-dimensional grid in the model. 2D/2D interfaces can be used when the user defines two or more juxtaposed grid polygons (for the purposes of representing more or less detailed topography and/or different cell orientations in different areas).

Simulation

The simulation window allows the user to input the simulation start and end time (runtime) and the simulation time-step (how frequently the model performs calculations during the runtime).

XPSWMM Model Output Parameters

After the model has completed a simulation, various methods are available to interpret results. XPSWMM output data that doesn't require post-processing consists of colored or shaded displays representing water surface elevations, water depths, and water velocities during each time-step of the simulation. The density of output information matches the selected grid scale, which affects how some output data displays. For example, velocity data along channel areas with a smaller grid would have more vectors displayed, but shouldn't imply higher volume of flow.

The user is able to "watch" the display as it progresses from one time-step to the next and is able to "pause" at any point in the simulation to export the results produced during that time-step. Additionally, the user is able to quickly view results during the time-steps that produce the maximum or minimum values of the selected output parameter (i.e., max or min water depths).

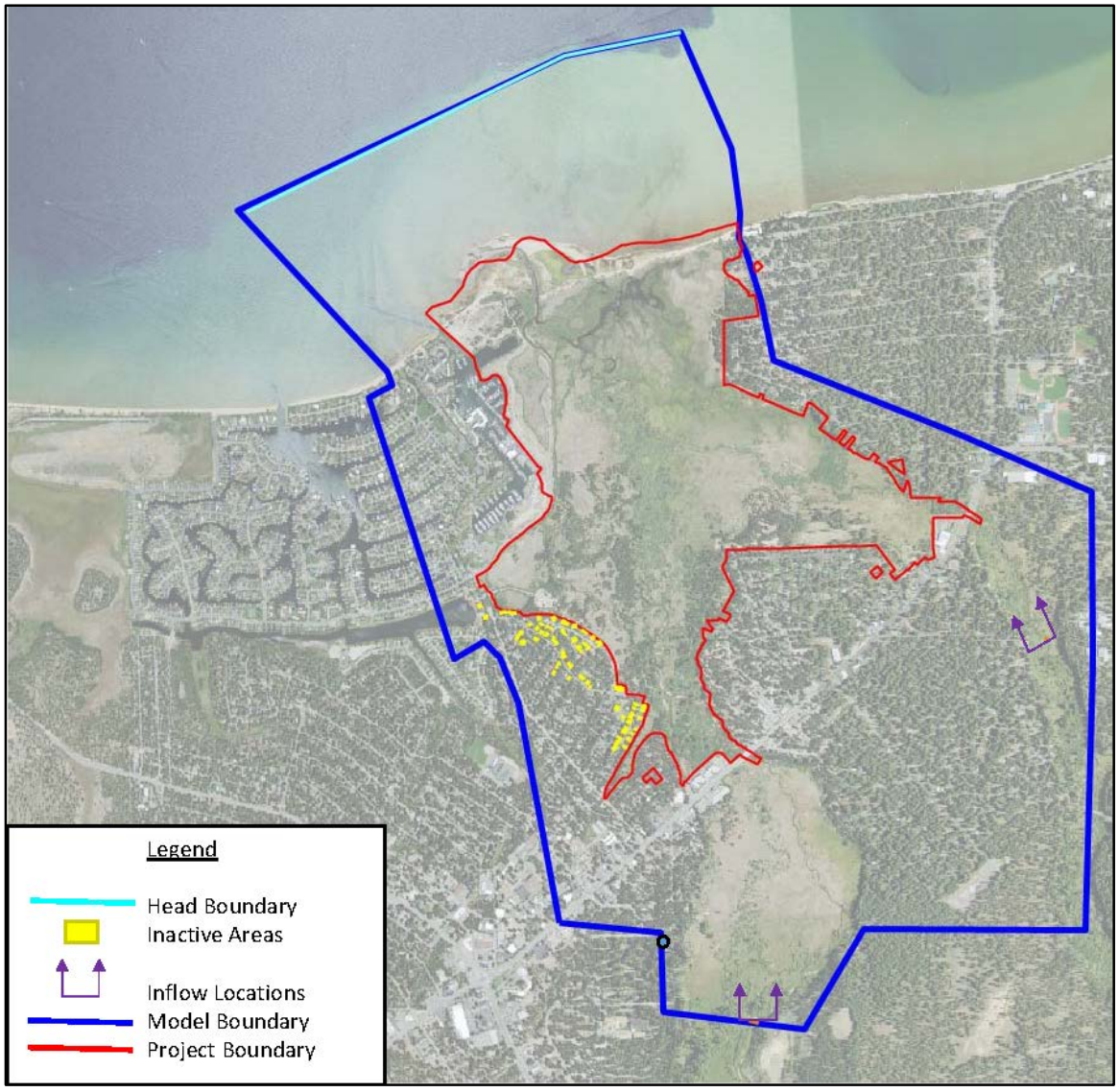
XPSWMM Output Interpretation/Post-Processing

XPSWMM provides two-dimensional model output in the same manner that it allows two-dimensional input: in the form of point files, ESRI grid files, or shape files that can be analyzed and/or graphically displayed in GIS.

This Page Intentionally Left Blank

4 Existing Conditions

The Project boundary includes the Upper Truckee River and Trout Creek channels and all adjacent areas of the marsh from Lake Tahoe up both streams to US 50 (Figure 4-1). The Conservancy determined this Project Boundary for the purposes of project development and environmental documentation, and all areas potentially affected by direct Project activities were included in the Project Boundary regardless of property ownership. The Final EIR/EIS/EIS specifies the areas which are proposed for construction and access under the preferred alternative. The "existing" conditions hydraulic model represents the topography and condition of the channels, vegetation and built-environment features in the Project vicinity as of 2013. For the purposes of simulating hydraulic conditions during major flood events, the model boundary must extend beyond the Project Boundary. This allows the model to reflect the flows entering from the upstream watersheds, the bridge crossings under US 50 at the Upper Truckee River and Trout Creek, and interactions with Lake Tahoe (Figure 4-1).



Source: Cardno 2015

Figure 4-1: Project Area, Model Area, Inactive Areas, Head Boundary, and Flow Boundaries

Existing Conditions Model Input Parameters

Topography

DTM

To support the detailed hydraulic model development, one-foot-interval LiDAR topographic data that became available in 2011 for the study area (TRPA 2011) were combined with 2013 bathymetric cross section survey data along the Upper Truckee River (spaced every 50–100 feet along the alignment) and lower Trout Creek to create a digital elevation model (DEM) of the existing ground surface for the Project study area and the entire model extent. The horizontal datum of the DEM is California State Plan Coordinate System Zone II US Foot, and the vertical datum is NAVD88 to match the vertical datum used in the 2012 FIS (FEMA, 2012).

Grid Size

The existing grid polygon determines the hydraulically active areas of the model and extends throughout the model boundary (Figure 4-1). The grid size selected in the channel alignments is 20 feet by 20 feet (~16,500 cells) and the grid size through the remainder of the model boundary is 40 feet by 40 feet (~63,000 cells).

Flow constrictions

Structures known to have the potential to constrict flow in the model area include the two US 50 bridges crossing the Upper Truckee River and Trout Creek. Additionally, the pedestrian bridges downstream of the US 50 bridges on the Upper Truckee River and Trout Creek are represented in the model. Bridge locations, shapes, dimensions and elevations are included into the XPSWMM model.

Inactive areas

Inactive areas established in the existing conditions model include the footprint of houses near the project boundary in locations where previous modeling and the FEMA maps showed the potential for flow interaction. The inactive polygons were traced in the model using a georeferenced background aerial. Designating inactive area polygons assists in accurately depicting obstacles to flow that could modify flow routing and/or occupy flood storage space and contribute to net higher water surfaces, so this step is a conservative (i.e., worst-case) modeling assumption.

Land use/Land cover polygons

To represent existing conditions, the recent FEMA 1D HEC-RAS flood modeling used roughness coefficients (Manning's n) that ranged from 0.02 to 0.1 within channels and from 0.02 to 0.12 in the floodplain (FEMA FIS 2012). Several years prior, the 1D HEC-RAS modeling for the Project by Cardno (2005) distinguished several roughness classes to represent the details of vegetation and land cover mapping in the study area, and applied coefficients ranging from 0.02 to 0.09 (Table 4-1). For the present study, updated digital vegetation mapping files prepared by Conservancy staff (2014) were available and imported into the model as polygon boundaries for assigning existing conditions roughness values (Figure 4-2). The roughness values applied to various vegetation types and land cover conditions in the study area (Table 4-1) are more conservative than the values previously applied in the Project's 1D HEC-RAS model and span the range used in the FEMA study, even including higher roughness assumptions for willows than the roughest assumption used in the 2012 FIS. Areas not assigned a specific roughness value default in the model to n =0.06, a reasonable representation of the mixed cover and material types. As an additional conservative assumption, soils for all cover types are assumed to be 100% saturated, representing a worst-case flooding scenario (i.e., winter rain-on-snow event or spring runoff event when antecedent rainfall and/or temperature has formed saturated or frozen ground conditions).

Table 4-1: Land Cover Types and Assigned Model Roughness Coefficients

Land Cover Type	Manning's n Value ENTRIX (2005)	Manning's n Value Cardno (2015)
Channel	0.035	0.04
Conifers	0.07	0.10
Grass	0.05	0.06
Scrub	0.08	0.10
Street	0.02	0.02
Willows	0.09	0.15

Source: ENTRIX, in Conservancy and DGS 2005; Cardno 2015

Boundary/Flow Conditions

The Project and model boundaries for the existing condition scenario are as depicted in Figure 4-1.

Head boundary

The downstream head boundary in the model represents the control that the water elevation of Lake Tahoe has on flow and stage conditions (Figure 4-1). For the existing conditions scenario, the head boundary elevation is set to 6229.1 feet, which represents the legal high lake limit and is most likely associated with worst-case flooding conditions in the Project area.

Flow conditions

To assess the effect of large magnitude, low-frequency floods and the FEMA regulatory floodplain, the 100-year (1% annual chance) peak flow is input to the model. To assist with screening for potential changes to nuisance or hazardous flooding under smaller, more frequency events, the 10-year (10% annual chance) peak flow is also modeled. Some of the neighborhoods along the west margin of the Project boundary (i.e., in the Tahoe Island and Sky Meadows neighborhoods) have experienced ponding and flooding during fairly small (i.e., > 10-year) peak flows (Figure 4-3).

Our existing condition model assumed the same peak flow values as in the 2012 FEMA FIS (Table 4-2), which are similar to those used in the prior modeling by Cardno (dba ENTRIX). The Upper Truckee River and Trout Creek input locations are upstream of the US 50 bridges (Figure 4-1). The 10-year flow inputs are routed via a 1D node within each river channel. The 100-year flow inputs are routed via a 2D flow line to represent inputs across the floodplain as well as the channel(s).

Table 4-2: Upper Truckee River and Trout Creek Peak Flows (cfs)

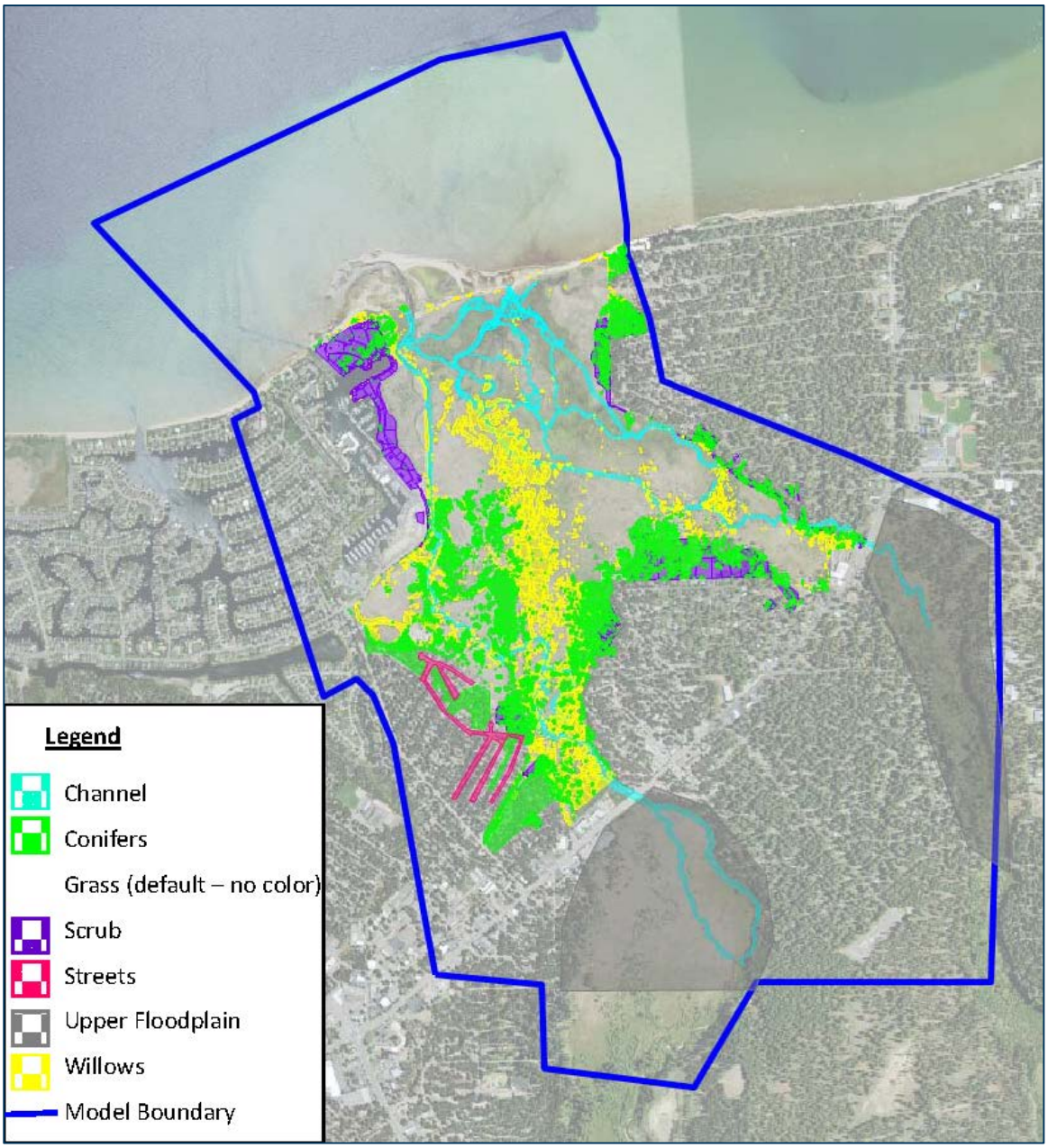
Water Body	FEMA 100-year	FEMA 10-year	ENTRIX 100-year	ENTRIX 10-year
Upper Truckee River	7,376	2,347	7,650	2,550
Trout Creek	948	391	900	380

Source: FEMA FIS 2012; ENTRIX 2003 (cited in Conservancy and DGS 2003)

Simulation

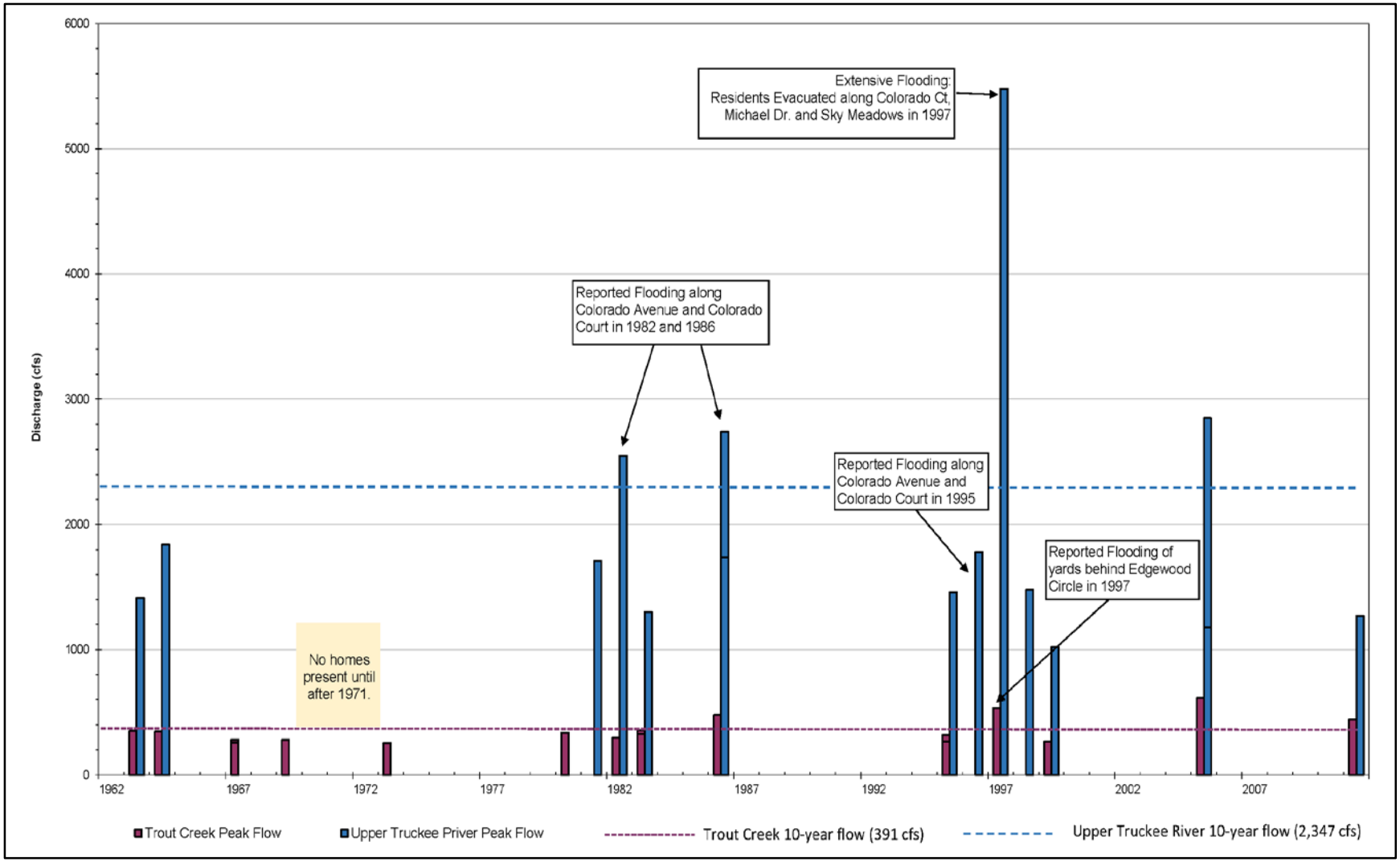
The peak values were modeled as "steady state" (continuous) over a 12-hour duration. The purpose of this extended duration is to allow adequate travel time for the model to route peak flows through the system. This approach was applied since the topography has a very low slope and relatively high roughness values. Therefore, low velocities of floodplain flow can result in travel times of several hours from the points of the upstream inflow locations to the outfall location (downstream head boundary). The 2012 FEMA FIS did not

specify whether their model was a steady state or an unsteady state model, so applying a constant peak inflow as input for the XPSWMM model remained conservative. A sensitivity analysis was performed using the hydrographs developed by Cardno for prior 1D modelling efforts, and XPSWMM results did not show substantial differences between the steady state and unsteady state output.



Source: California Tahoe Conservancy, 2014

Figure 4-2: Land Use/Cover Types as of 2014 as Roughness Polygons for the Existing Condition



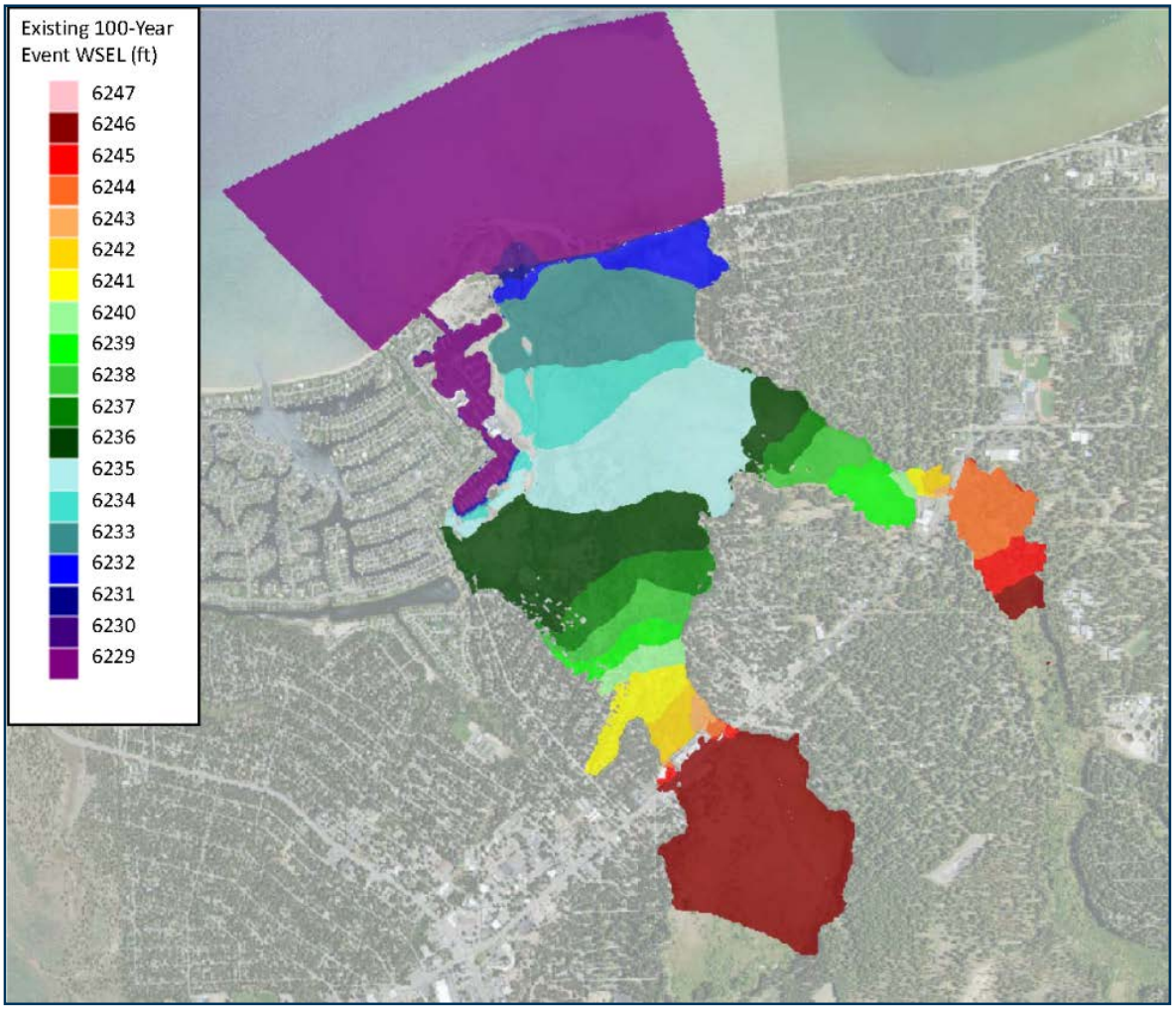
Source: Cardno 2015

Figure 4-3: Reported Historic Neighborhood Flooding in the Project Vicinity

Existing Conditions Model Output: 100-Year Event

Water Surface Elevations

The simulated water surface elevations (WSELs) for existing conditions under the 100-year flood event along the Upper Truckee River range from 6,229 feet in the lake, 6230 feet at the mouth of the river, 6235 feet in the middle of the marsh and 6240 at the Sky Meadows drainage to 6,245 feet at the US 50 Bridge and 6,247 feet at the upstream model extent (Figure 4-4). Along Trout Creek, the WSEL is slightly lower at the US 50 Bridge (~6244 feet) (Figure 4-4).



Source: Cardno 2015

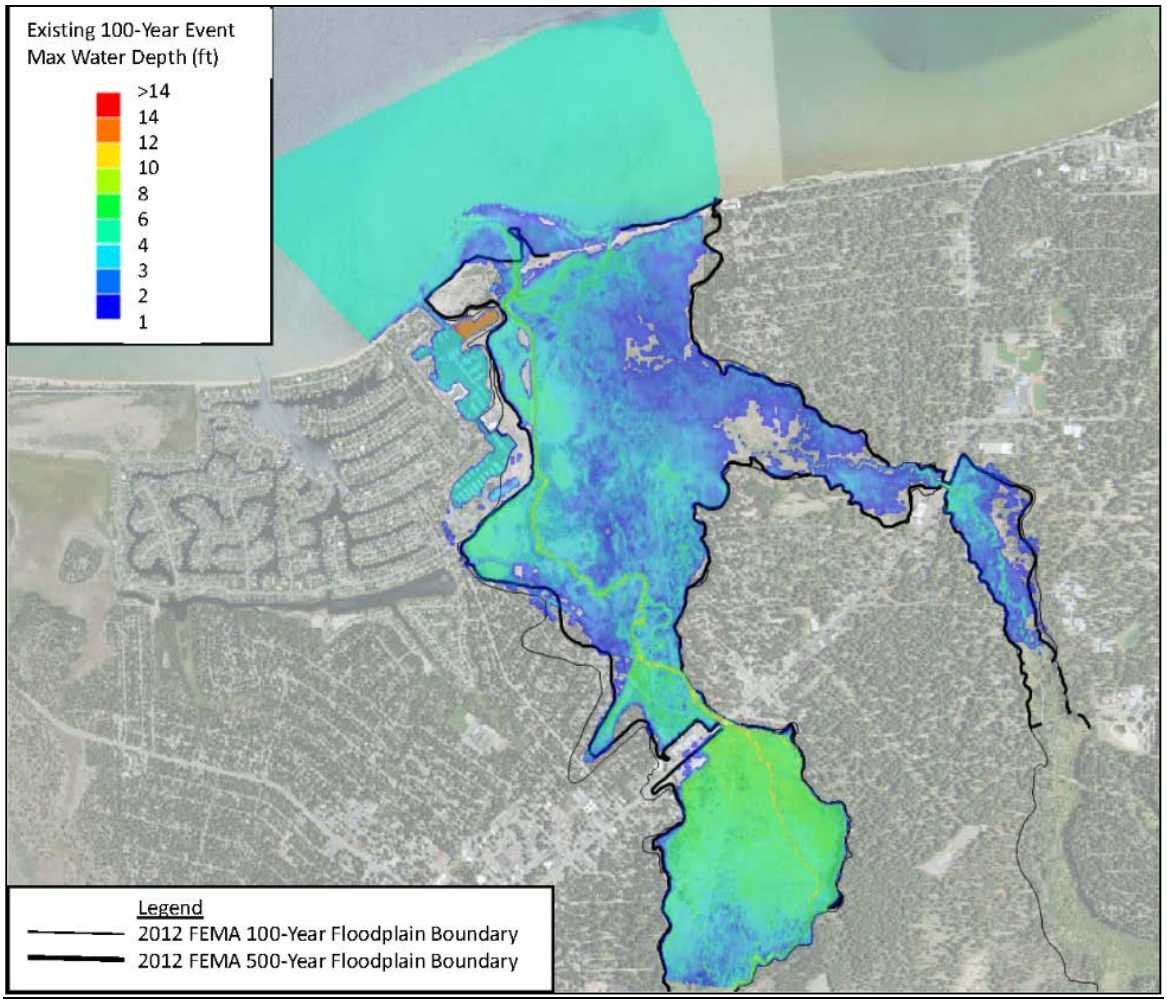
Figure 4-4: Existing Condition 100-Year Flood Simulated Water Surface Elevations

Water Depth

The simulated maximum water depths for existing conditions under the 100-year flood event are up to 10 to 12 feet in the Upper Truckee River channel, and 1 to 2 feet deeper in the Sailing Lagoon (Figure 4-5). We depict areas simulated to have one or more feet of water depth to focus on active floodplain areas and to be consistent with FEMA floodplain mapping protocols. Modeled 100-year flood water depths are moderately deep (4 to 6 feet) across the upstream valley reach on the Upper Truckee River, in the

western corner of the floodplain by the TKPOA yard (by the intersection of Tahoe Keys Boulevard with East Venice Avenue), along the existing channel on the western third of the Project area, and in the deepest sections of the existing lagoon at the confluence of Trout Creek (Figure 4-5).

Water depths are shallow (1 to 2 feet) along the southwest margin of the floodplain, in much of the middle of the marsh, and in portions of the Trout Creek corridor and northeast edge of the site (Figure 4-5).

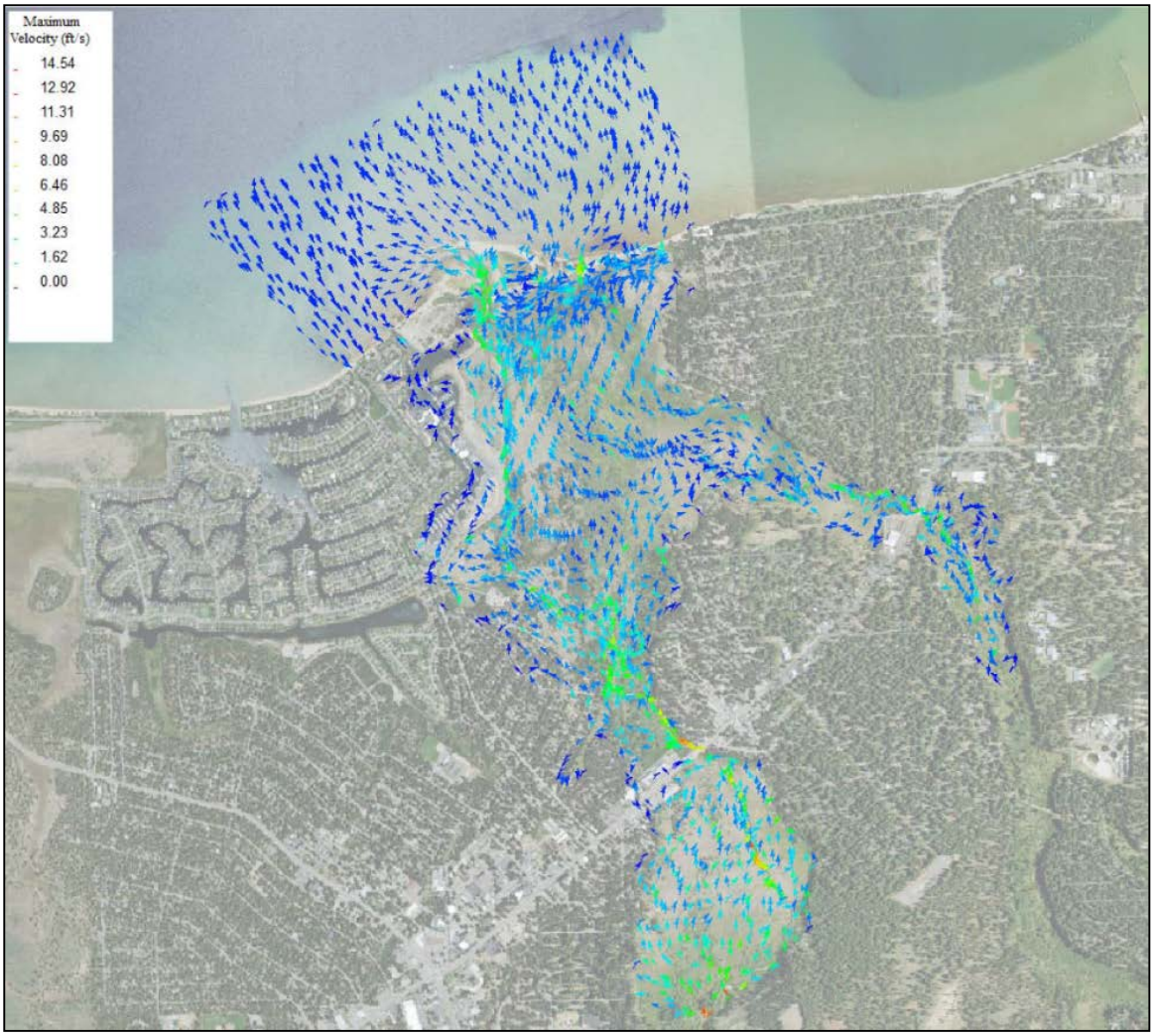


Sources: Cardno 2015; FEMA 2012

Figure 4-5: Existing Condition 100-Year Flood Simulated Water Depths

Flow Direction and Velocity

The simulated 2D model flow directions and velocities for the 100-year event under existing conditions indicate that the margins of the inundated floodplain area experience low-velocity movement and multi-directional eddies (Figure 4-6). This suggests and is consistent with an overall backwater influence from the assumed high lake stand (6,229 feet) up this low gradient river reach. As expected, some higher velocity, more organized and directed flow occurs along the main river channel and multi-thread reaches, in the main channel of both the Upper Truckee River and Trout Creek just downstream of the US 50 bridges, and where the channels exit through the beach ridge into Lake Tahoe (Figure 4-6).The maximum velocities within the model boundary are in the channel just downstream of the US 50 bridge and in a couple of isolated channel sections upstream.



Source: Cardno 2015

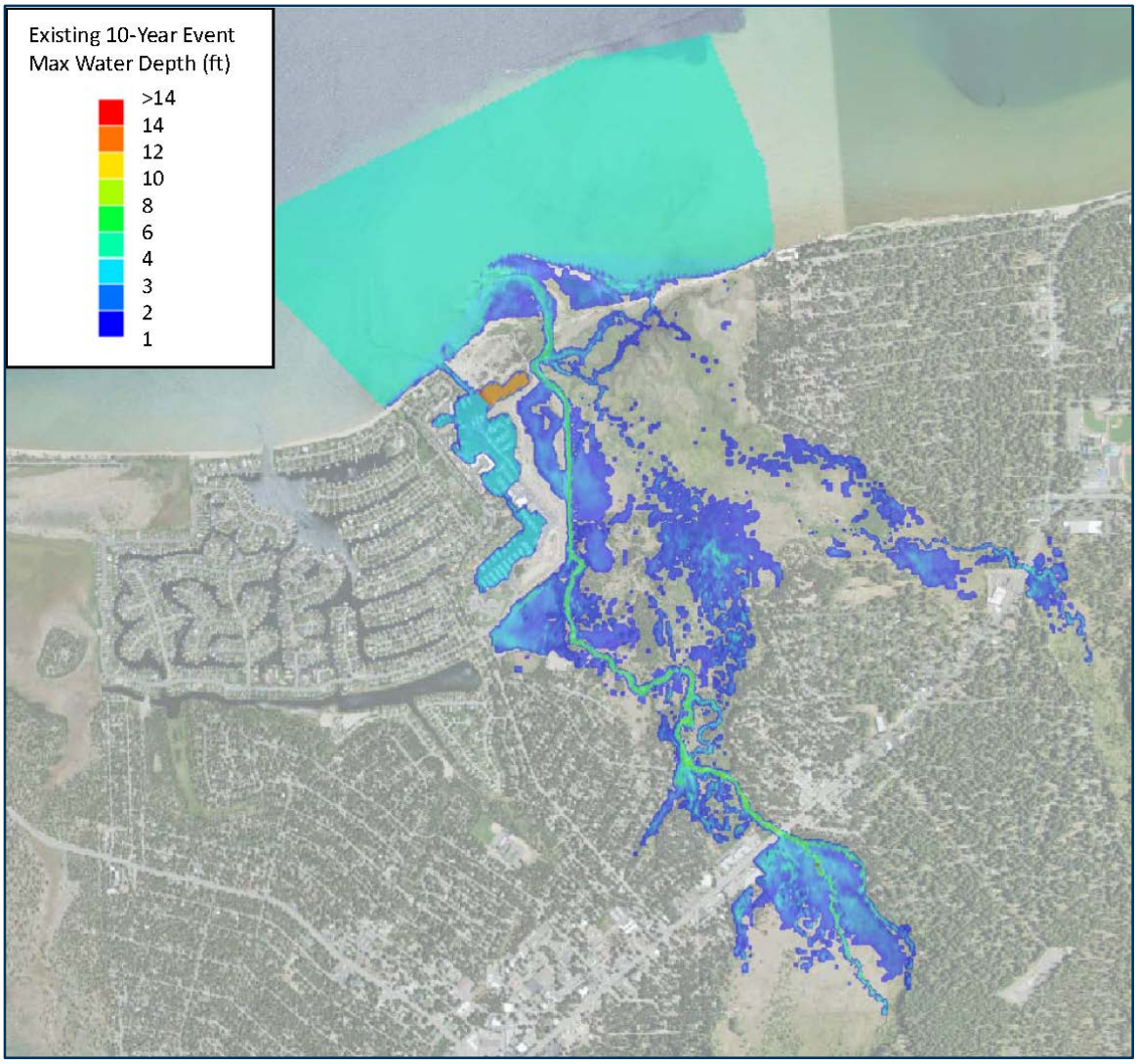
Figure 4-6: Existing Condition 100-Year Flood Simulated Flow Directions and Velocities

Existing Conditions Model Output: 10-Year Event

Water Depth

The simulated maximum water depths for existing conditions under the 10-year flood event range up to 6 to 8 feet in the Upper Truckee River channel, and up to 14 feet in the Sailing Lagoon (Figure 4-7).

Modeled 10-year flood water depths are moderately deep (3 to 4 feet) in the existing secondary channel in the valley reach on the Upper Truckee River and near its confluence with the side drainage north of Sky Meadows, in edges of the floodplain by the TKPOA yard, in a few areas along the existing channel on the western third of the site, and in a few deep sections of the existing lagoon at the confluence of Trout Creek (Figure 4-7). Most of the marsh has shallow (1 to 2 foot) or very shallow (less than 1 foot) inundation.

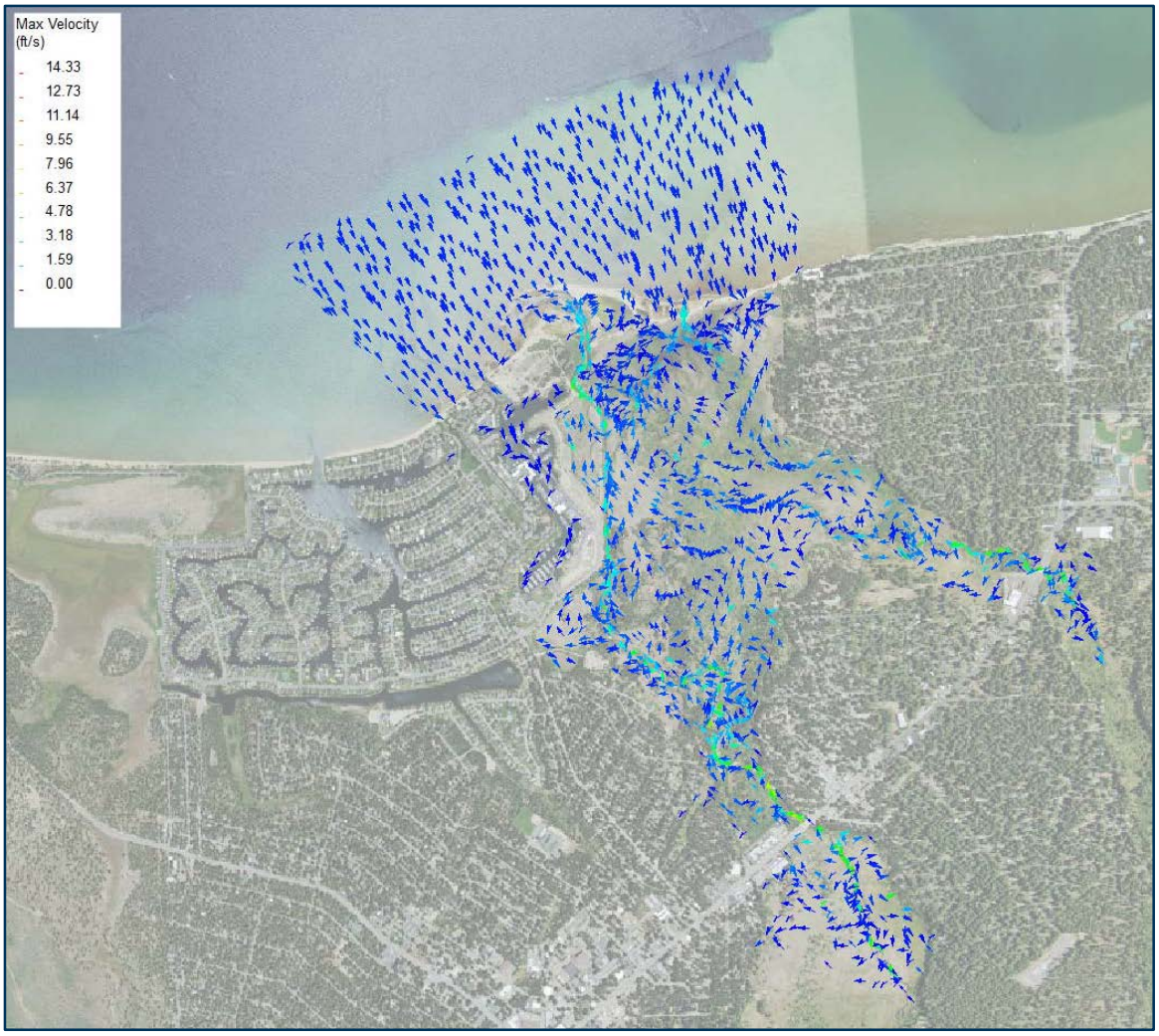


Source: Cardno 2015

Figure 4-7: Existing Condition 10-Year Flood Simulated Water Depths

Flow Direction and Velocity

The simulated 2D model flow directions for the 10-year event under existing conditions (Figure 4-8) have a very similar pattern to the 100-year event with low-velocity movements and multi-directional eddies, as well as distinct flow pathways along the existing channel alignments and across a few portions of the floodplain (i.e., on the southwest edge). The range of velocities differ from the 100-year event, with lower and more localized maximum velocities near the bridges, in the deep spots of the Upper Truckee River channel, and where the river crosses the beach ridge at the mouth (Figure 4-8).



Sources: Cardno 2015

Figure 4-8: Existing Condition 10-Year Flood Simulated Flow Directions and Velocities

5 Existing Conditions Discussion

The 100-year event peak flow of 7,376 cfs used in this simulation is the same as that in the 2012 FEMA FIS and it lies within the estimates for the 1997 flood flows (~5,500 to 8,200 cfs by the USGS and USACE, respectively). Therefore, the 1997 flood event observations provide an opportunity to compare with model results for the 100-year existing conditions. These data have been used to calibrate/validate the existing conditions model results from the 2D XPSMM simulations and were also used during the earlier 1D HEC-RAS model calibration (Conservancy and DGS 2005). A couple of representative photographs taken by Conservancy staff during the 1997 flood event indicate the observed depths of flood waters in the Tahoe Island (Figure 5-1) and Sky Meadows neighborhoods (Figure 5-2).

In 2000, Cardno conducted an engineering survey of 1997 flood indicators at four locations within these two affected neighborhoods based on photographs, homeowners' recollections, and remaining flood debris/damage marks (Figures 5-3 and 5-4). The surveyed elevations of the flood water indicators at specific locations and the corresponding XPSWMM 100-year existing model water surface elevations at the same location are listed on the aerial base maps. The observed and modeled flood elevations are very close. All 1997 flood indicator elevations are slightly higher than the XPSWMM existing conditions water surface elevations except for at the location of 2366 Sky Meadows (Figure 5-4) where the XPSWMM water surface elevations is 0.08 feet higher than the 1997 flood indicator at that location. The largest difference between the observed 1997 and modeled 100-year events water surfaces occurs at 745 Colorado Court (Figure 5-3) where the flood indicator is 0.24 feet higher. Given that the survey of the flood indicators was performed two years after the flood event, and that there was a range of estimated peak flows, the XPSWMM water surface elevations are very consistent with and close to the flood indicator elevations. The close fit of the model to the observations for the 100-year event and the 1997 flood are consistent with the general hydraulic expectations for such a wide, low gradient floodplain. That is, flooding patterns during large-magnitude events would not be highly sensitive to minor differences in the flow, topography, or roughness.

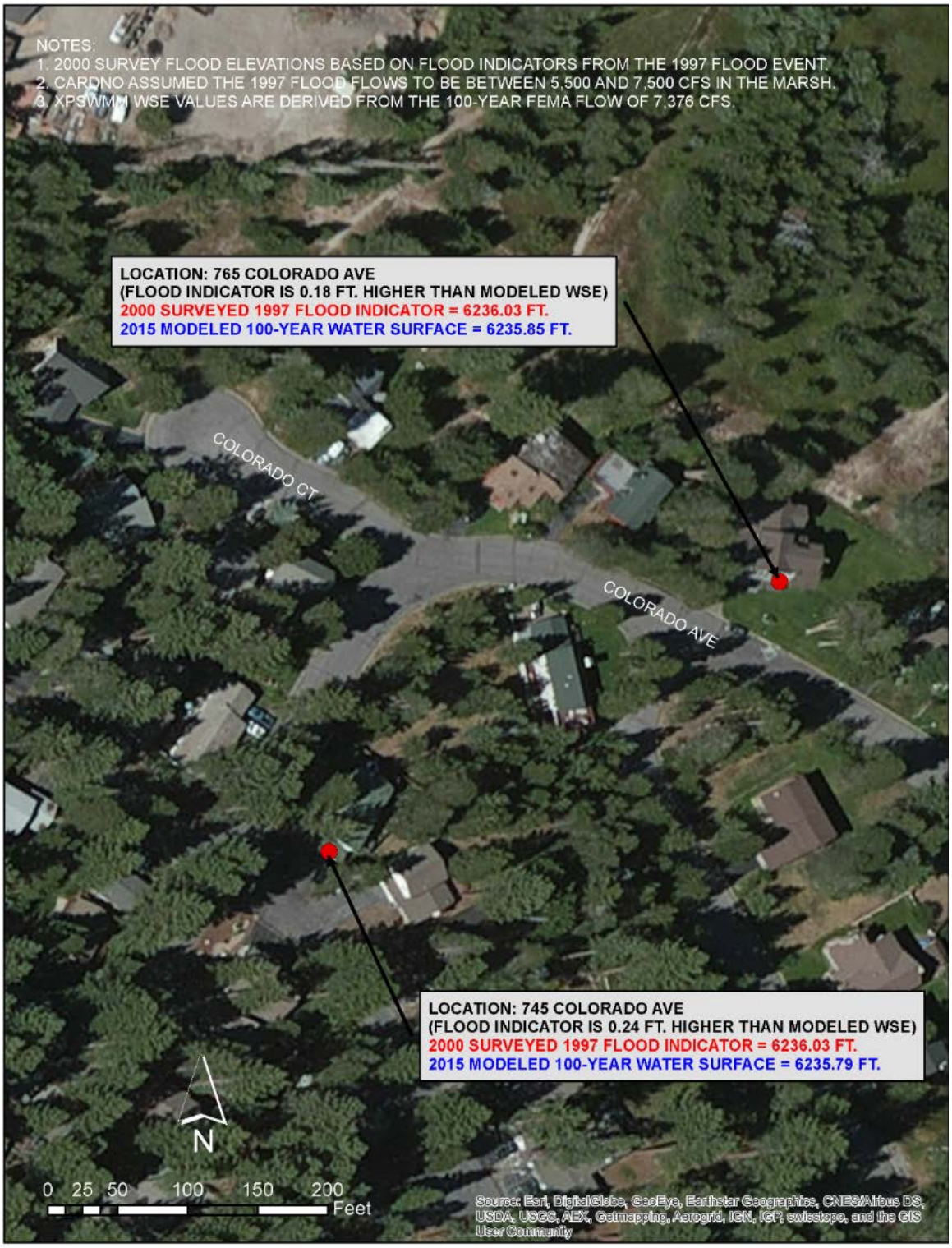
In addition to the 1997 field data, FEMA's 2012 study and mapping are also valuable as comparison to the existing conditions 2D 100-year model. The modeled water surface elevation across the site as simulated by the detailed 2D model compare very reasonably to the water surface elevation cross sections from the FEMA 1D model. Similarly, the modeled water depths across the site as simulated by the detailed 2D model are consistent with the FEMA 2012 100-year floodplain boundary (see Figure 4-5, above).

The combination of field based observations from the 1997 flood and the elevation and boundary comparisons with the FEMA maps provide assurance that the 100-year existing conditions simulated for the Project vicinity by the 2D model are representative of real-world conditions.

While no quantitative information or surveyed flood elevations at specific locations were available for the 10-year event to use in calibration, the 2D model results match anecdotal information about minor neighborhood flooding and flow paths for events when the Upper Truckee River flow is between 1,000 to 3,500 cfs (see Figure 4-3).

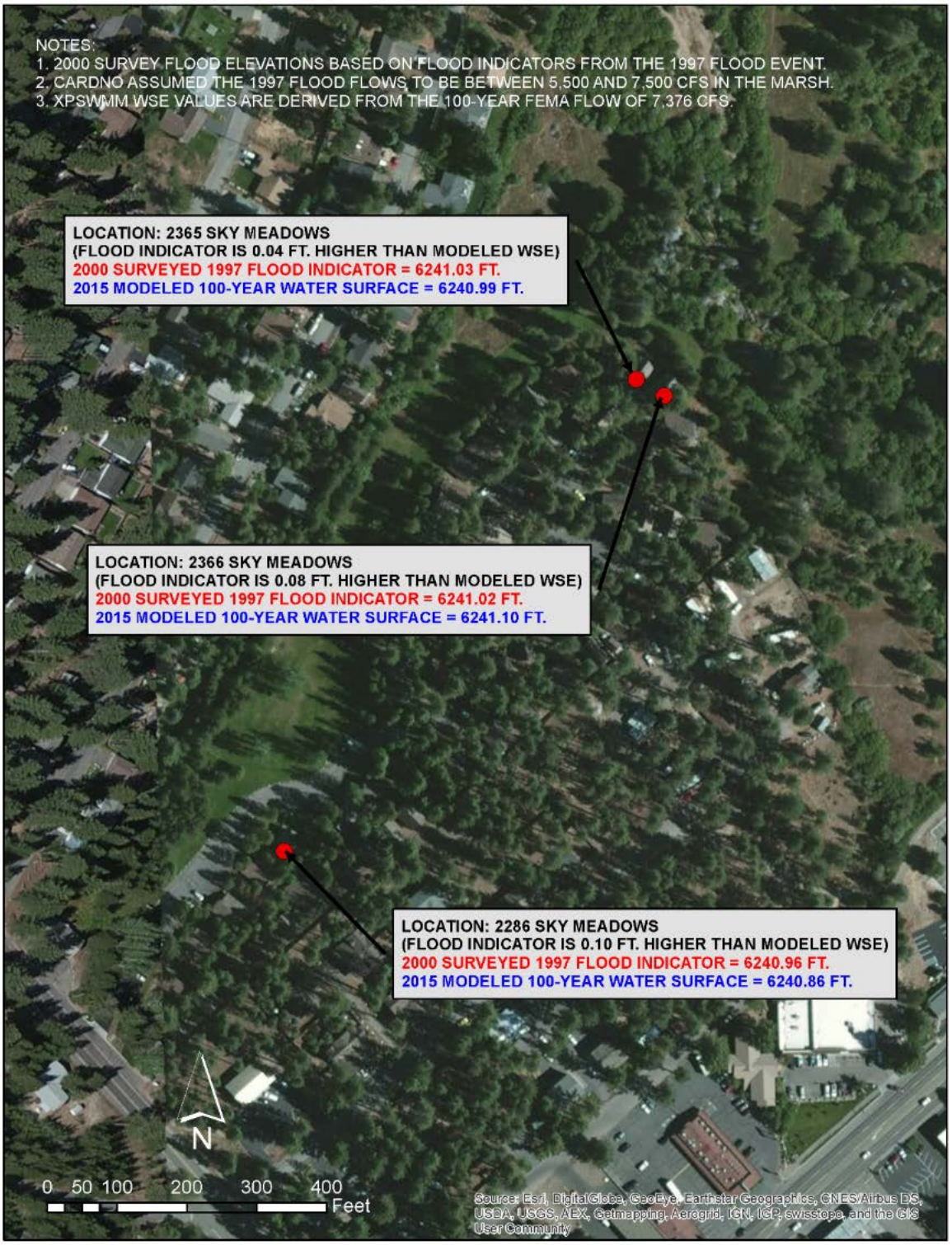
Figure 5-1: Representative 1997 Flood Conditions in Tahoe Island

Figure 5-2: Representative 1997 Flood Conditions in Sky Meadows



Source: Cardno 2015

Figure 5-3: Comparison of 1997 Flood Indicators Surveyed Elevations with 2015 Modeled 100-year Water Surface Elevations: Tahoe Island



Source: Cardno 2015

Figure 5-4: Comparison of 1997 Flood Indicators Surveyed Elevations with 2015 Modeled 100-year Water Surface Elevations: Sky Meadows

This Page Intentionally Left Blank

6 Preferred Alternative Conditions

The Preferred Alternative condition is simulated using the same model boundary as for the Existing Conditions model (Figure 4-1).

Preferred Alternative Model Input Parameters

Topography

DTM

The topography in the calibrated 2D hydraulic model for existing conditions was modified to represent the topographic conditions associated with the Preferred Alternative (Figure 6-1). The horizontal and vertical datum remained unchanged.

Topographic changes representing the Preferred Alternative that are included in the 2D hydraulic simulations include:

- Pilot channel excavation and the pilot channel confluence re-contouring;
- Removal of reserved fill on the Lower West Side (LWS) wetlands (the 'islands' of fill along the existing channel and a portion of the fill along the existing trail;
- Backfill of the existing channel to be abandoned (partial channel fill from the pilot channel downstream to the straightened reach and then complete fill to match the surrounding surface of the LWS);
- Minor channel grade controls and bed modifications at the mouth;
- Reconnection of the Sailing Lagoon to the river;
- Removal of a small fill area at the east end of Barton Beach, and,
- Restoration of dune features between the Sailing Lagoon and Cove East beach.

The above listed topographic changes proposed as part of the Preferred Alternative would all occur on public (State of California) lands.

A few topographic changes proposed as part of the Preferred Alternative would occur on private land and/or require additional agreements or easements that are not certain. While these potential measures would improve flood conveyance and/or capacity, they were not included in the 2D model simulations so that proposed conditions model output would remain conservative. That is, that flood conditions would not worsen as a result of the Project even if the Conservancy could not attain the required easements and agreements for the following:

- Removal of the TKPOA Corporation Yard fill;
- Floodplain lowering within the valley reach downstream of US 50 and upstream of the proposed pilot channel;
- Construction of bank stabilization downstream of US 50; and,
- Installation of through flow culverts in the earthen embankments at US 50;

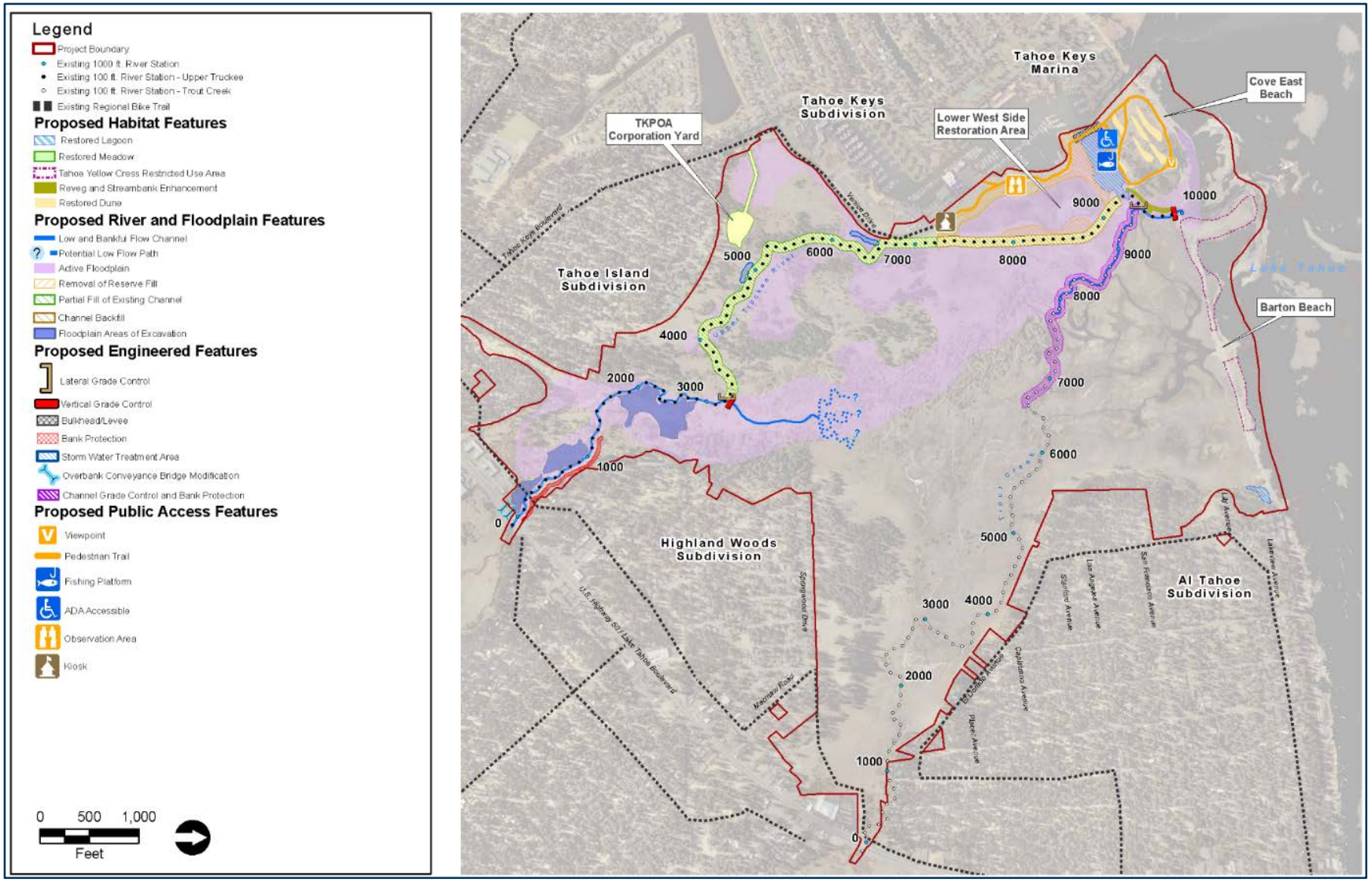


Figure 6-1: Preferred Alternative Conceptual Design Features

Grid Size

The grid size and extents for the proposed condition simulation are that same as for the existing condition (although the Upper Truckee River 'channel' alignment is relocated to follow the pilot channel and remnant channels through the marsh).

Flow constrictions

The flow constrictions for the proposed condition simulation are the same as they are in the existing condition.

Inactive areas

The inactive areas for the proposed condition simulation are the same as they are in the existing condition.

Land use polygons

The land use cover type categories and associated Manning's n values are the same in the proposed condition simulation as they are for the existing condition (Table 4-1). However, some of the land cover type polygons were modified to reflect the direct and indirect changes to vegetation and/or land cover that would result from implementation of the Preferred Alternative (Figure 6-2). For example, willow polygons presently in the location of proposed pilot channel were replaced by channel roughness polygons, and the existing channel to be backfilled was replaced by a combination of grasses with some willow polygons.

Boundary/Flow Conditions

Head boundary

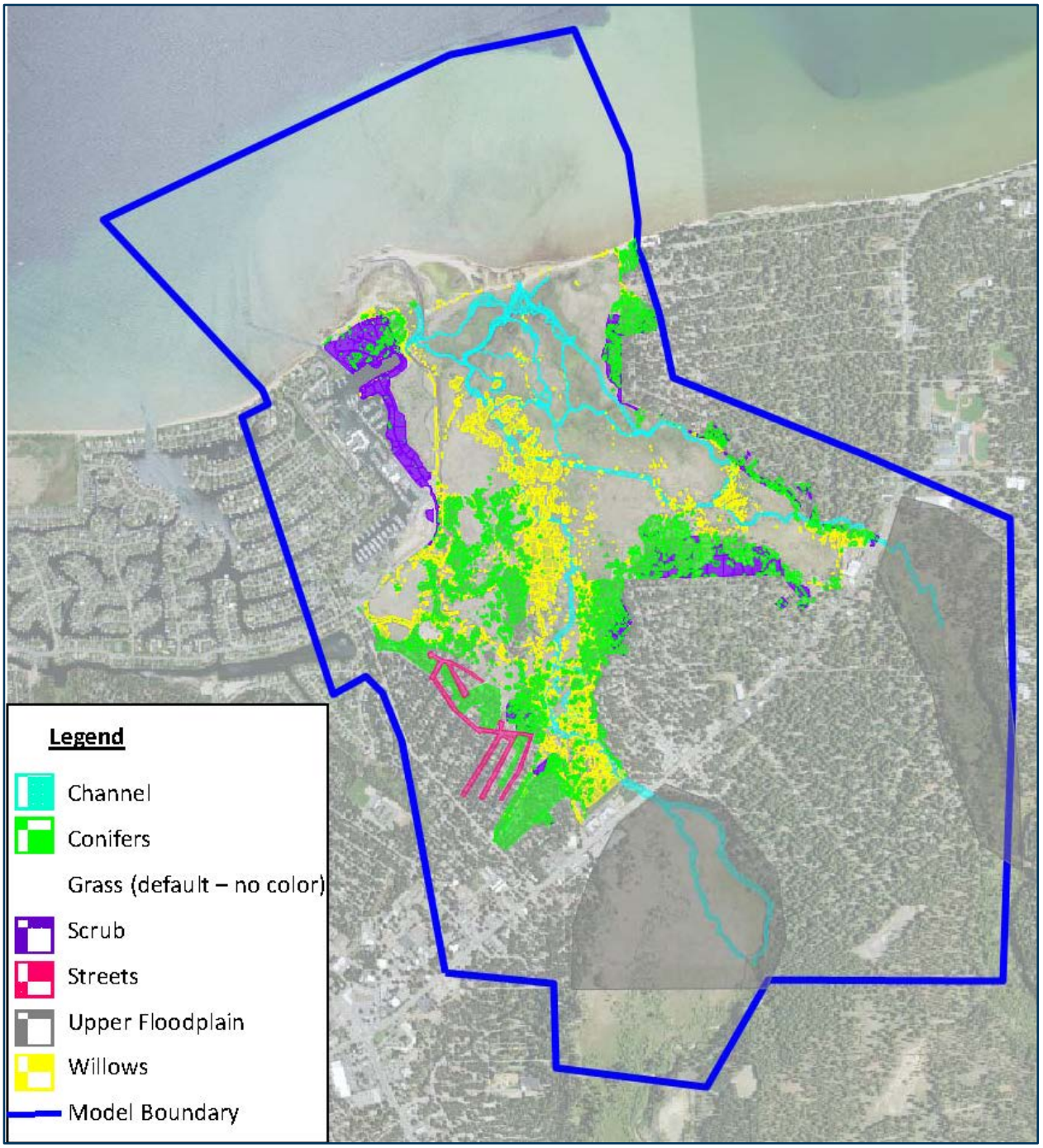
The head boundary conditions in the proposed condition simulation is the same as for the existing condition.

Flow condition

The flows simulated for the proposed condition are the same as for the existing condition.

Simulation

The proposed condition was simulated using a 12-hour steady state flow, as was applied for the existing condition.



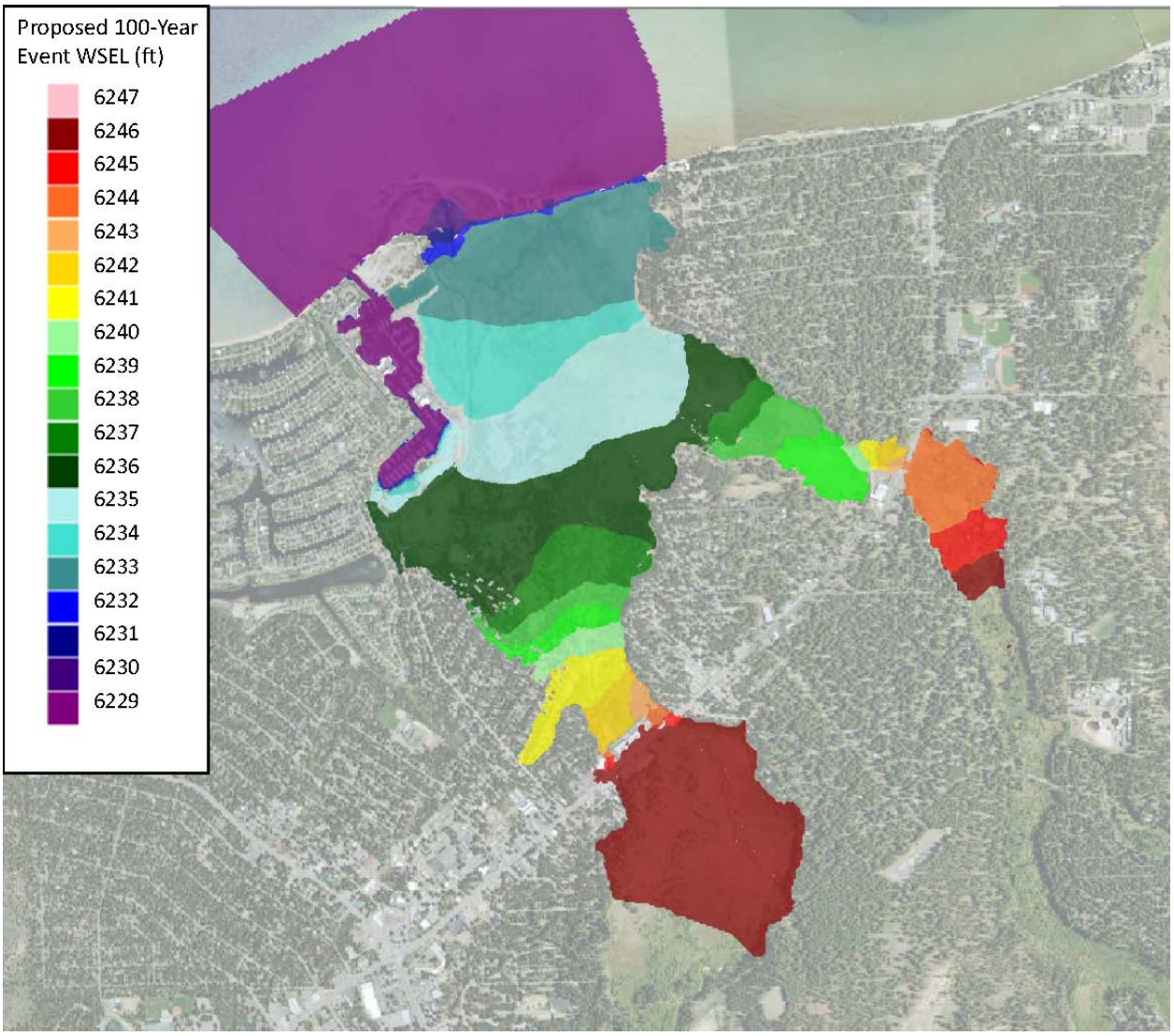
Source: Conservancy 2014

Figure 6-2: Land Use/Cover Types Modified as Roughness Polygons for the Preferred Alternative Condition

Preferred Alternative Model Output: 100-Year Event

Water surface elevations

The simulated water surface elevation (WSELs) for the preferred alternative condition under the 100-year flood event span the same range of elevation from the mouth at the lake (~6229 feet) to the US 50 bridges (~ 6244 feet) and the upstream model boundary (~6247 feet) as for the existing condition (see Figures 6-3 and Figure 4-4). Generally, the water surface shape and slope throughout the modeled area is similar to the existing condition, with similar contours and spacing, as well as absolute elevations.

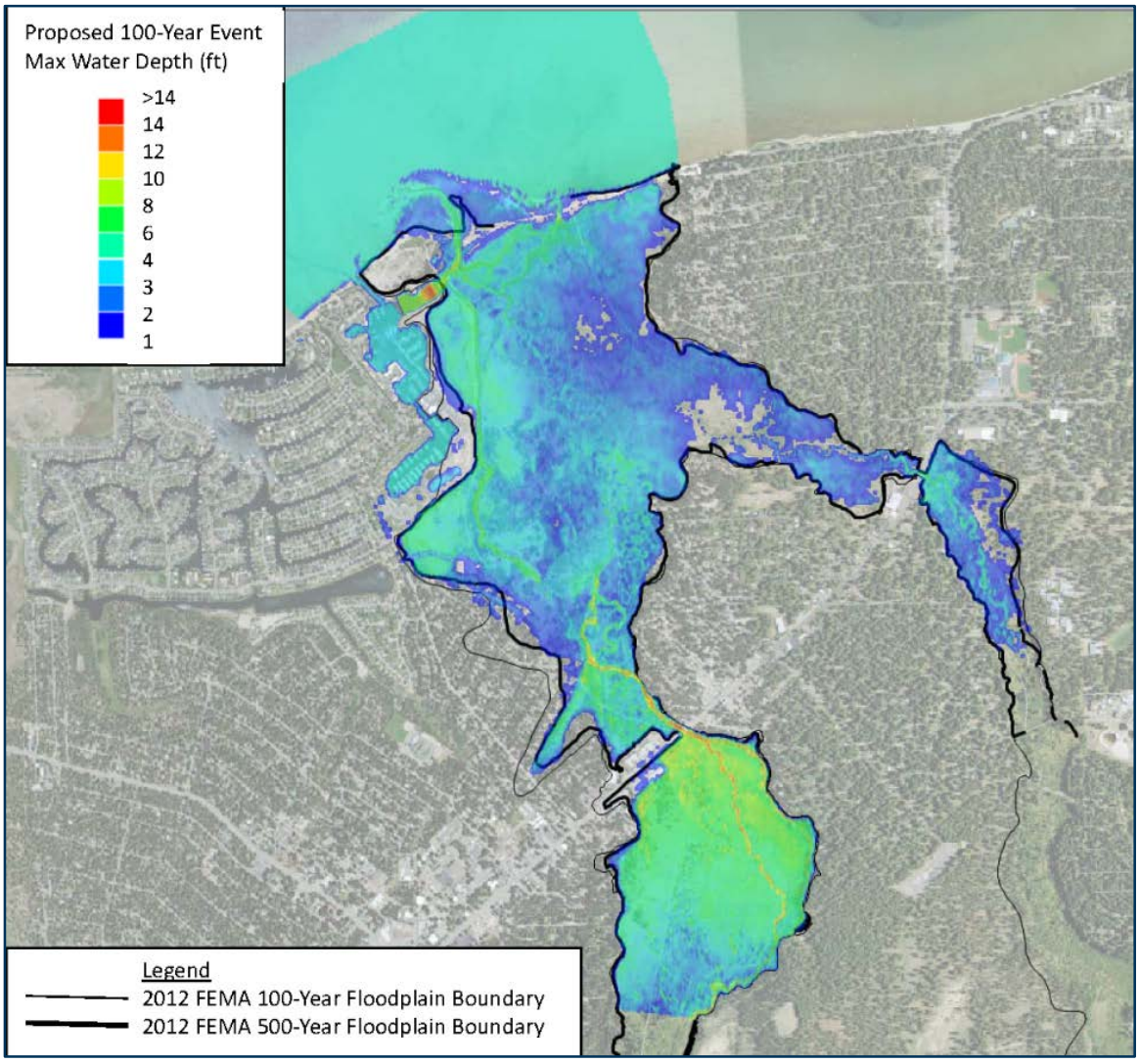


Source: Cardno 2015

Figure 6-3: Preferred Alternative Condition 100-Year Flood Simulated Water Surface Elevations

Water Depth

The simulated water depths for the Preferred Alternative under the 100-year flood event (Figure 6-4) are very similar to those for the existing conditions (Figure 4-5), spanning the same range of depths and overall pattern, aside from increased diversity of depths in the reconnected lagoon and the elimination of some deep flow along the existing channel segments that will be abandoned. We depict areas simulated to have one or more feet of water depth to focus on active floodplain areas and to be consistent with FEMA floodplain mapping protocols. The total extent and boundary shape of the 100-year flood water depths is nearly identical to the existing condition and to the 2012 floodplain boundary (see Figures 4-5 and 6-4). Water depths remain greatest in the Sailing Lagoon, and the upstream portions of the Upper Truckee River channel (Figure 6-4).



Sources: Cardno 2015 and FEMA 2012.

Figure 6-4: Preferred Alternative Condition 100-Year Flood Simulated Water Depths

Modeled 100-year flood water depths are moderately deep (4 to 6 feet) across the upstream valley reach on the Upper Truckee River, in the western corner of the floodplain by the TKPOA yard (by the intersection of Tahoe Keys Boulevard with East Venice Avenue), along the existing channel on the west side third of the Project area, including the LWS wetlands, in the existing lagoon at the confluence of Trout Creek, and along the pilot channel extending northeast towards the middle marsh (Figure 6-4). Water depths are shallow (1 to 2 feet) on the southwest margin of the floodplain [over a slightly larger area by the pilot channel than under existing conditions], in portions of the middle of the marsh east of the pilot channel confluence, and in portions of the Trout Creek corridor and northeast edge of the site (Figure 6-4).

As anticipated with the design concept, the 100-year flood water depths are reduced along the backfilled channel, but increased throughout the LWS wetlands and along the pilot channel corridor through the middle of the marsh. These changes are consistent with the intent to reactivate the marsh's remnant channels, restore the channel and floodplain connectivity and to allow the restored LWS wetlands, reconnected Sailing Lagoon and re-activated floodplain terrace into a unified system. The water depths under the Preferred Alternative do not adversely affect existing flood hazards to any of the surrounding developed lands.

Flow Direction and Velocity

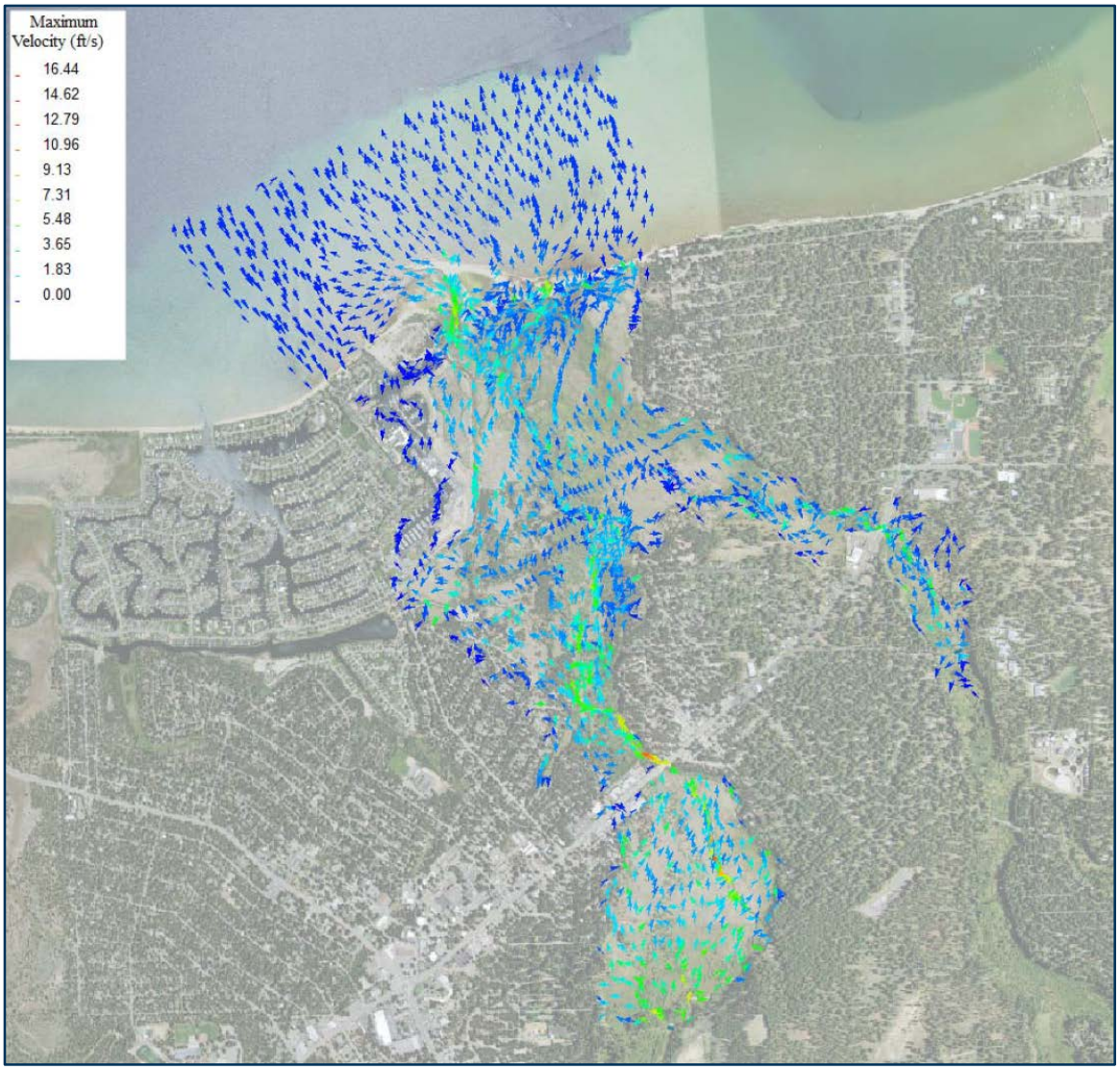
The simulated flow directions and velocities for the 100-year event under the Preferred Alternative (Figure 6-5) are similar to those for the existing conditions (Figure 4-6). The maximum velocities within the model boundary are in the channel near and upstream of the US 50 bridge. The backwater eddies around the outer fringes of the study area are similar. Flow directions shift and become more varied along the backfilled channel as it is no longer an organized high flow route. There are expected local velocity increases and routing changes in the excavated pilot channel area, at the connection with the Sailing Lagoon, and at the mouth of the Upper Truckee River and Trout Creek. Additional flow interactions across the western floodplain, LWS and the reconnected Sailing Lagoon are evident, as expected and desired.

Preferred Alternative Condition Model Output: 10-Year Event

Water Depth

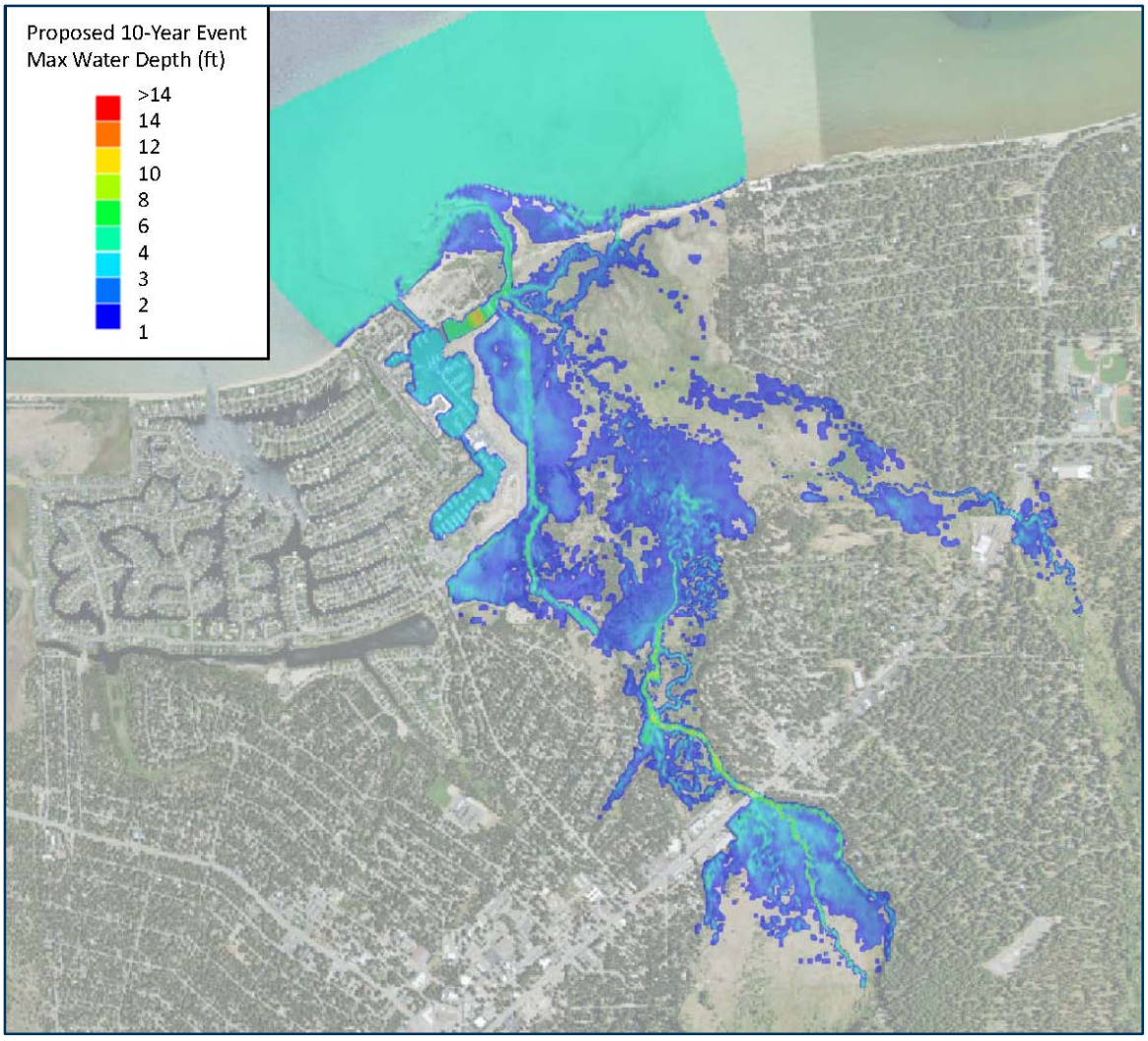
The simulated water depths for Preferred Alternative condition under the 10-year flood event range up to 10 to 12 feet in a few isolated upstream areas of the Upper Truckee River channel (Figure 6-6). In the reconnected Sailing Lagoon, water depths are more varied than under the existing condition 10-year event, but include small areas up to 12 and 14 feet deep (Figure 4-7).

Modeled 10-year flood water depths for the Preferred Alternative (Figure 6-6) are moderately deep (4 to 6 feet) in the existing secondary channel in the upstream valley reach on the Upper Truckee River and near its confluence with the drainage north of Sky Meadows; in a reduced portion of the corner of the floodplain by the TKPOA yard; in a larger area along the existing channel across the LWS wetlands; in a larger number and extent of remnant channel sections in the middle of the marsh; and, in a corridor along the pilot channel. The areas of the reconnected back beach lagoon, restored LWS floodplain, and middle of the marsh all have depths slightly increased relative to existing conditions under the 10-year event. The area near the pilot channel confluence would have reduced water elevations and depths, and most of the marsh would still have shallow (1 to 2 foot) or very shallow (less than 1 foot) inundation.



Source: Cardno 2015

Figure 6-5: Preferred Alternative 100-Year Flood Simulated Flow Directions and Velocities

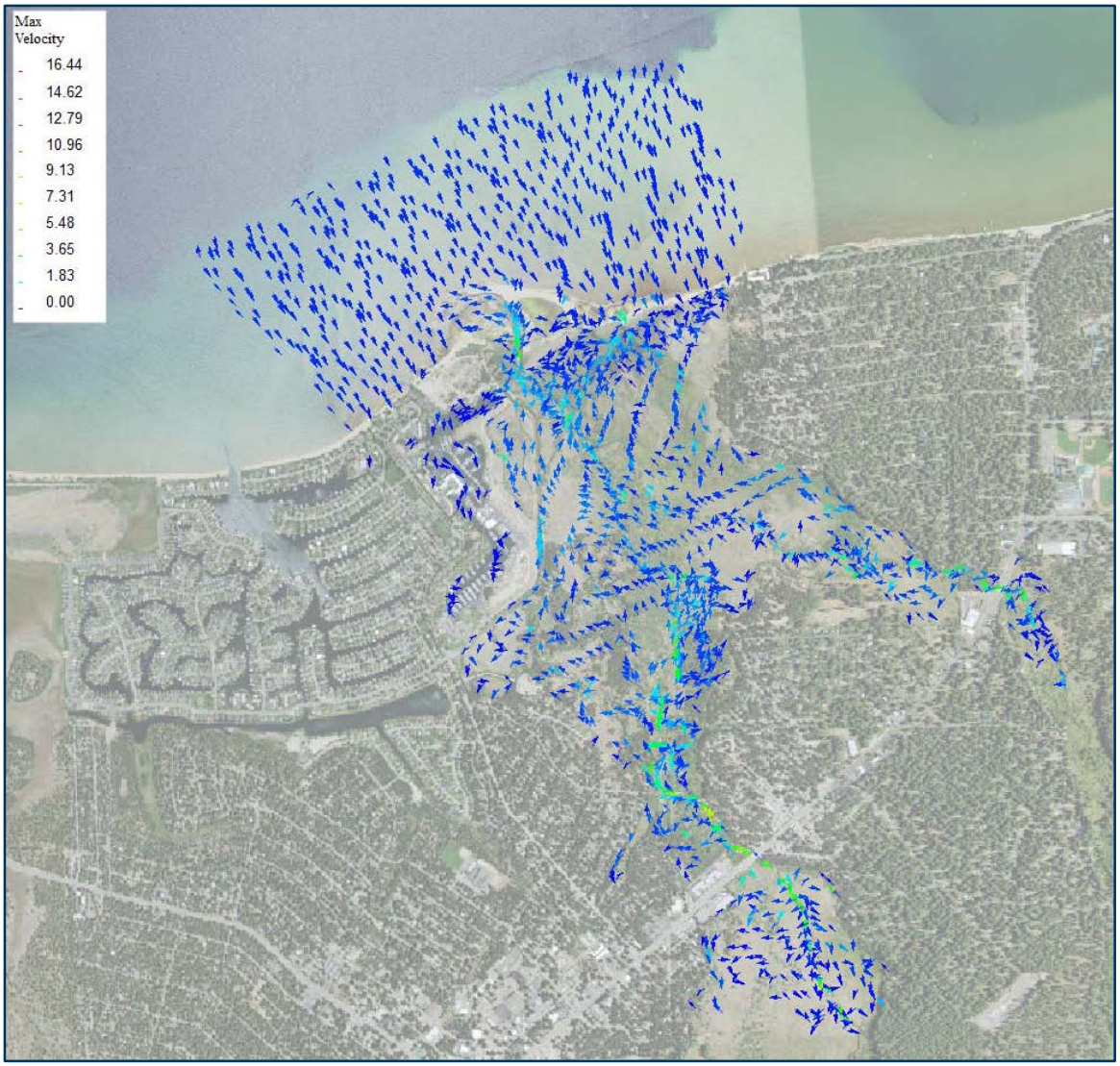


Source: Cardno 2015

Figure 6-6: Preferred Alternative 10-Year Flood Simulated Water Depths

Flow Direction and Velocity

The simulated 10-year flow directions for the Preferred Alternative (Figure 6-7) have a similar spatial pattern to existing conditions (Figure 4-8) upstream of the proposed pilot channel, but differ downstream. The velocities are lowered and flow routing simplified in the west side of the floodplain (along the existing channel alignment) relative to the existing condition. More velocity vectors are located in the reactivated floodplain area between the Upper Truckee River and Trout Creek, but with reduced vector density and magnitudes along portions of the Trout Creek alignment. The velocities and vector patterns across the reconnected LSW wetlands and Sailing Lagoon are slightly reduced in magnitude and more distributed and organized overall, consistent with desired back-beach processes in the lagoon reach.



Source: Cardno 2015

Figure 6-7: Preferred Alternative 10-Year Flood Simulated Flow Direction and Velocities

7 Preferred Alternative Discussion

Existing versus Proposed 100-year Flood Conditions

The modeling of both the existing conditions and the proposed conditions under the Preferred Alternative are at the same level of detail; utilize the most detailed and up-to-date topographic and bathymetric data; calculate results using consistent grid scales; have the same hydrologic inputs, and make the same 2D model simulation assumptions. Comparison of the graphic model results for the Preferred Alternative (Section 6, above) and Existing Conditions (Section 4, above) indicate differences in hydraulic parameters anticipated as a result of implementing the Project's Preferred Alternative. To facilitate a rigorous comparison of proposed 'with Project' versus existing conditions under the 100-year flood event, the 2D modeled water surface elevations for both scenarios are presented below in summary maps. The first summary map (Figure 7-1) presents the simulated 100-year WSELs for the Preferred Alternative as colored polygons (those presented in Figure 6-3, above) with an overlay of the simulated100-year WSEL contour lines for the Existing Condition (originally shown in Figure 4-4, above).

In most areas, the proposed and existing 100-year WSELs display few differences (Figure 7-1). For example, results are similar above and immediately downstream of the US 50 bridges, in the valley reaches along the Upper Truckee River and Trout Creek, and in the western corner of the floodplain (near the intersection of Tahoe Keys Boulevard and East Venice Avenue). The largest shifts in the 100-year WSELs are within the middle of the marsh, along the pilot channel, and at the reconnected lagoon. These small increases in flood water elevations under the 100-year event are associated with desired conditions and ecosystem functions in the Project area, while not resulting in increased flood hazards to surrounding developed lands.

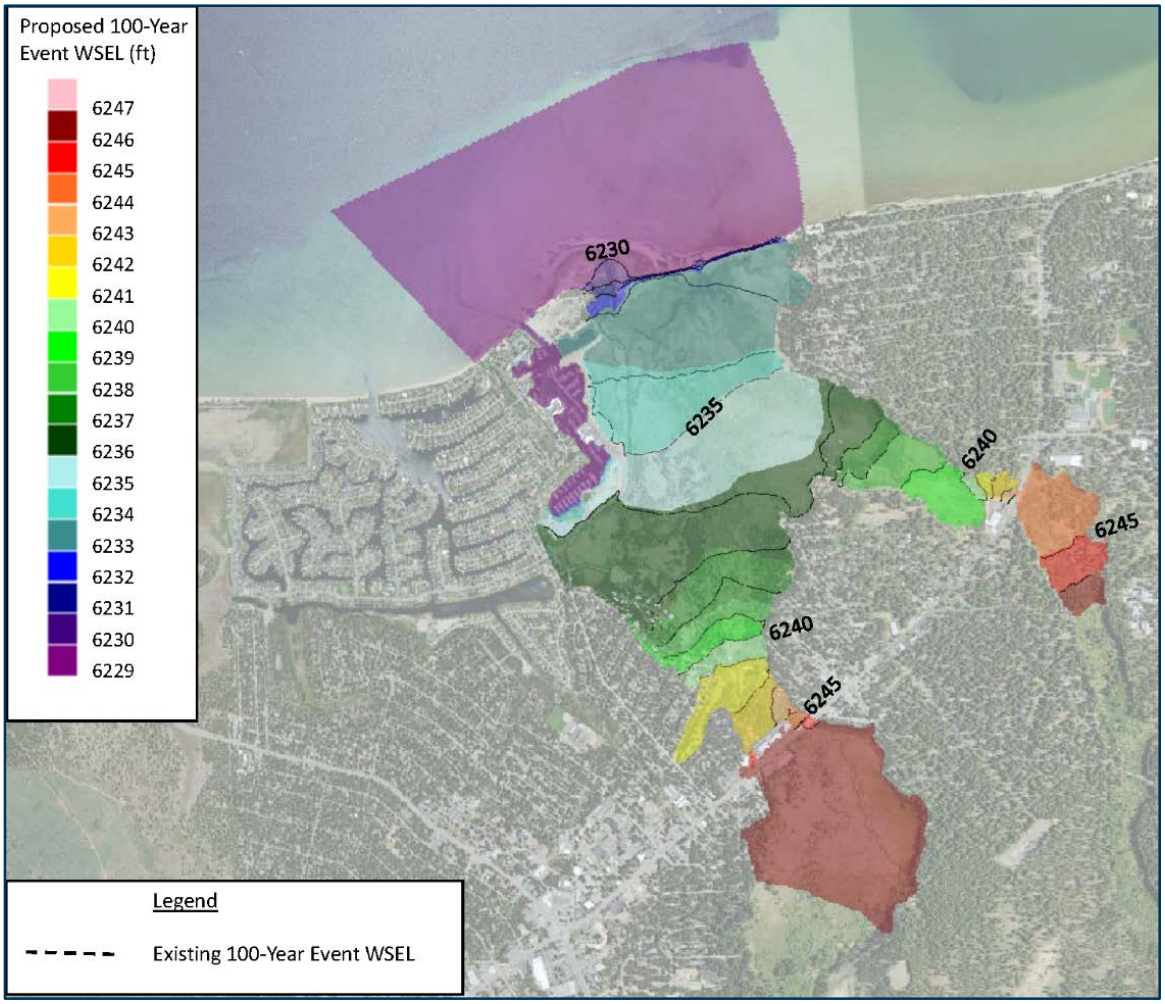
The final two comparative figures (Figures 7-2 and 7-3) depict model output that has been exported from XPSWMM and analyzed in GIS software to identify residual differences in WSELs. A 'positive' residual value represents a higher WSEL under the Preferred Alternative than for the Existing Conditions, and a 'negative' residual represents a lower WSEL under the Preferred Alternative. Therefore, positive and negative residuals may indicate either beneficial or adverse potential changes, depending on their location. The sections below describe the changes to WSELs for the Preferred Alternative in the 100-year flood.

100-year Flow WSEL Changes with the Preferred Alternative

Figure 7-2 is a map of the positive residuals for the 100-year event to assist with screening for adverse flood hazard impacts. There are WSEL increases in the reconnected Sailing Lagoon (2 to 5 feet), at and upstream of the reconfigured mouth (+0.1 to 0.4 feet), and throughout the back-beach lagoon across the marsh (+0.1 to 0.8 feet). Another area of increase is in the middle of the marsh where the pilot channel reconnects to remnant channels (+0.2 to 0.4 feet). All of these increased 100-year WSELs are desired and expected outcomes that occur without producing adverse flooding changes. A few, isolated model grid cells where topography changes rapidly (e.g., from flat floodplain to side slope or portions on the irregular shoreline) have model residuals indicating WSEL increases, but these are considered model noise as they are directly adjacent to grid cells that have residuals indicating WSEL decreases (see Figure 7-3).

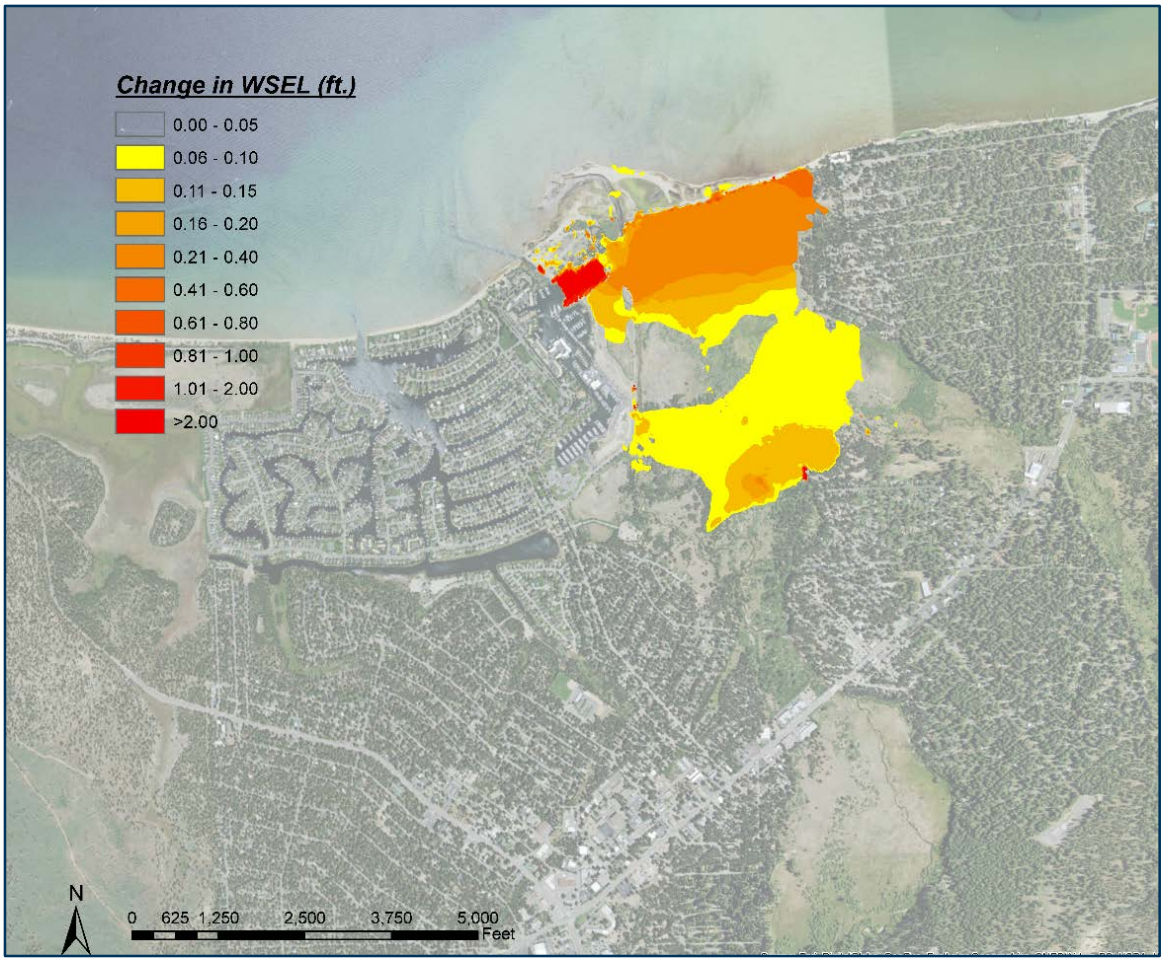
Figure 7-3 is a map of the negative residuals for the 100-year event to assist with screening for possible improvements in hazardous flood levels. A broad area at the downstream end of the valley reach along the Upper Truckee River, including the area modified as the pilot channel, is simulated to have lowered 100-year WSELs (-0.1 to -0.4 feet). A zone of lowered WSELs (-0.06 to -0.2 feet) is simulated on the southwest margin of the 100-year floodplain, along residential areas. The largest decreases are along the LWS (-1 to -5 feet), where fill is being removed and water is allowed to spread across the restored floodplain. WSELs are also lowered downstream of the reconfigured mouth (-.05 to 2 feet).

The changes to the site associated with implementing the Preferred Alternative would; therefore, increase the 100-year water elevations relative to existing conditions at locations and in a manner that are desired and benefit the ecosystem services of the marsh, without expanding the floodplain or increase flood hazards to adjacent developed lands.



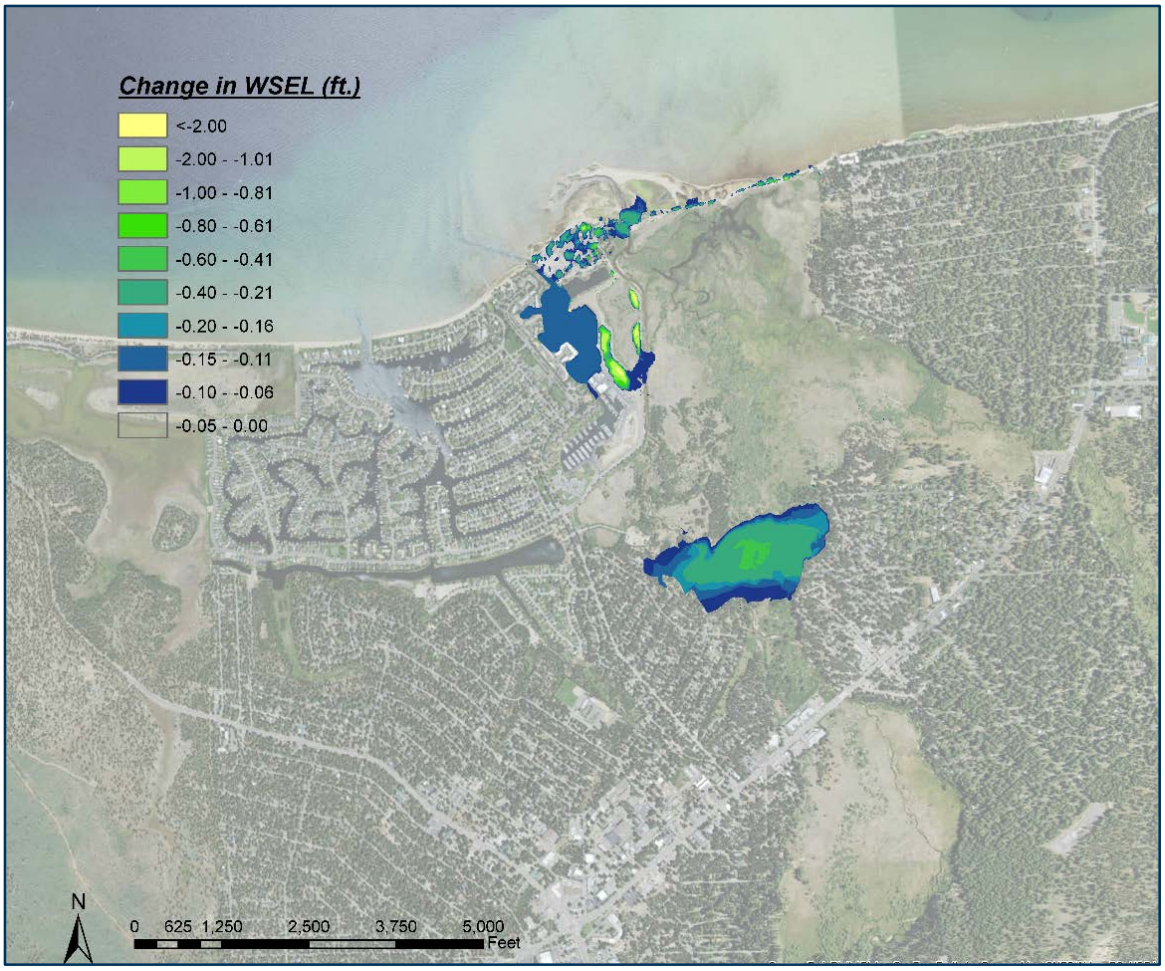
Source: Cardno 2015

Figure 7-1: 100-Year Flood WSELs under the Preferred Alternative and Existing Condition Scenarios



Source: Cardno 2015

Figure 7-2: 100-Year Flood WSEL Increases with Preferred Alternative



Source: Cardno 2015

Figure 7-3: 100-Year Flood WSEL Decreases with Preferred Alternative

8 References Cited

Bellomo, Doug, *Policy for Accepting Numerical Models for Use in the NFIP*, Federal Emergency Management Agency, 2004.

Conservancy and DGS. See California Tahoe Conservancy and California Department of General Services.

California Tahoe Conservancy. 2014. Upper Truckee River vegetation classification digital data and legend information. Provided to Cardno (Andrea Manha) on March 30, 2014 via email communication by Honeycutt, Jameson, Conservancy Resources and Public Access Program.

California Tahoe Conservancy and California Department of General Services, Real Estate Services Division. 2003. *Upper Truckee River and Wetland Restoration Project Processes and Functions of the Upper Truckee Marsh*. South Lake Tahoe and Sacramento, CA. Prepared by EDAW (now AECOM), Stateline, NV, and ENTRIX, Sacramento, CA.

California Tahoe Conservancy and California Department of General Services, Real Estate Services Division. 2005 (September). *Upper Truckee River and Marsh Restoration Project Alternatives Evaluation Report.* Prepared by EDAW (now AECOM), Stateline, NV, and ENTRIX, Sacramento, CA.

California Tahoe Conservancy and California Department of General Services, Real Estate Services Division. 2006. *Upper Truckee River and Wetland Restoration Project Final Concept Plan Report*. South Lake Tahoe and Sacramento, CA. Prepared by EDAW (now AECOM), Stateline, NV, and ENTRIX, Sacramento, CA.

California Tahoe Conservancy and California Department of General Services, Real Estate Services Division. 2013. *Upper Truckee River and Marsh Restoration Project Draft EIR/EIS/EIS Report.* Prepared by AECOM and Cardno ENTRIX.

Federal Emergency Management Agency (FEMA). 2012a. *Flood Insurance Study*. El Dorado County, California and Incorporated Areas, Revised: April 2012

Federal Emergency Management Agency (FEMA). 2012b. *Flood Insurance Rate Map*. El Dorado County, California and Incorporated Areas. Panel 386 of 1125. Map Number 06017C0335F. Map Revised April 3, 2012.

Federal Emergency Management Agency (FEMA). 2012c. *Flood Insurance Rate Map*. El Dorado County, California and Incorporated Areas. Panel 387 of 1125. Map Number 06017C0367F. Map Revised April 3, 2012.

Tahoe Regional Planning Agency (TRPA). 2011 (November 15). *TRPA Code of Ordinances*. Adopted November 15, 2011; effective March 1, 2012. Stateline, NV.

XP Solutions. 2015. XPSWMM Reference Manual. Last accessed online at http://xpsolutions.com/assets/downloads/xpswmm/xpswmm_Reference_Manual.pdf.

This Page Intentionally Left Blank

9 List of Preparers

Cardno Personnel	Project Role
Andrea Manha, PE, QSD/P Project Engineer 295 Highway 50, Suite 1 Zephyr Cove, NV 89448	Project Engineer and Lead Hydraulic Modeler
Sara Sigala Staff Engineer 295 Highway 50, Suite 1 Zephyr Cove, NV 89448	Staff Engineer, Hydraulic Modeler, GIS Technician
Virginia Mahacek Senior Geomorphologist/Branch Manager 295 Highway 50, Suite 1 Zephyr Cove, NV 89448	Project Manager, Lead Hydrologist and Geomorphologist
Mark Gookin, PE, CFM, QSD/P Senior Consultant/Branch Manager 5496 Reno Corporate Drive Reno, NV 89511	Hydraulic Model Reviewer and FEMA Compliance Expert
Paul Wisheropp, PE, CFM Senior Consultant 701 University Ave, Suite 200 Sacramento, CA 95825	Hydraulic Model Internal Peer Reviewer and FEMA Compliance Expert
Mike Rudd, PE Southwest Business Unit Manager, Technical Director, Senior Principal, Vice President 2300 Clayton Road, Suite 200 Concord, CA 94520	Principal-in-Charge, Senior Engineer

This Page Intentionally Left Blank

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

SCH# 2007032099

Lead Agencies:

California Department of
General Services
Mailstop 3-509
P.O. Box 989052
West Sacramento, CA 95798-9052

Attn: Tiffany Schmid, RESD-
Environmental Services, 3rd floor
Senior Environmental Planner
916/376-1609

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

Attn: Scott Carroll
Associate Environmental Planner
Watershed/SEZ Restoration
Program
530/543-6062

Tahoe Regional
Planning Agency
Lake Tahoe Environmental
Improvement Program

P.O. Box 5310
Stateline, NV 89449
Attn: Shannon Friedman
Senior Planner
775/589-5205
775/589-5233

U.S. Department of Interior
Bureau of Reclamation

2800 Cottage Way, MP-152
Sacramento, CA 95825
Attn: Rosemary A. Stefani, Ph.D.
Lake Tahoe Program Manager
916/978-5045

Prepared by:

City Hall Tower, 16th Floor
One East First Street
Reno, NV 89501

T +775-337-9565

Contact:
Danielle Hughes
775/227-9565

295 U.S. Highway 50, Suite 1
Zephyr Cove, NV 89448

Contact:
Virginia Mahacek
775/588-9069

00110066.04
12.03.15

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		

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. ▸ 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	Prior to, during, and post construction	Conservancy and its primary contractors for construction		

Environmental Commitments of the Upper Truckee River and Marsh Restoration Project	Implementation		Completion of Implementation	
	Timing/Schedule	Responsibility	Action	Date Completed
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. 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	Prior to and through construction	Conservancy and its primary contractors for engineering design and construction		

Environmental Commitments of the Upper Truckee River and Marsh Restoration Project	Implementation		Completion of Implementation	
	Timing/Schedule	Responsibility	Action	Date Completed
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. 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	From project design through construction	Conservancy and its primary contractors for engineering design and construction		

Environmental Commitments of the Upper Truckee River and Marsh Restoration Project	Implementation		Completion of Implementation	
	Timing/Schedule	Responsibility	Action	Date Completed
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		
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 Commitments of the Upper Truckee River and Marsh Restoration Project	Implementation		Completion of Implementation	
	Timing/Schedule	Responsibility	Action	Date Completed
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		
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.	Prior to and through construction	Conservancy		

Environmental Commitments of the Upper Truckee River and Marsh Restoration Project	Implementation		Completion of Implementation	
	Timing/Schedule	Responsibility	Action	Date Completed
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.				

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		

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		

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.		

APPENDIX D

Additional Response to Comments Received after the Comment Period

Appendix D

Upper Truckee River and Marsh Project Final Environmental Document

Additional Responses to Comments Received After the Comment Period

Context

The California Tahoe Conservancy (Conservancy) released the Upper Truckee River and Marsh Restoration Project (Project) Public Draft Environmental Document in February of 2013 for a 60 day public review period. The Conservancy provides written responses for comments received during this formal comment period, which can be found in sections 3 and 4 of the Final Environmental Document.

Several members of the public commented on the Project following the formal public review period, either by speaking at Conservancy Board meetings or through the submittal of written comments. Staff recognizes that these additional comments are an important part of the record and that they merit written responses due to their importance to the Board and public. Staff responds to these more recent comments below, with additional clarification provided for new and unique comments not already raised within the formal period.

Public Comments regarding potential access improvements on the east side of the Marsh

Several members of the public voiced concerns related to public access improvements on the east side of the Marsh. Comments were raised in December 2013, May 2014, and July 2014 at Conservancy Board meetings. Commenters expressed concerns that boardwalks, bike trails, and other developed facilities on the east side of the Marsh were not appropriate. Commenters indicated that potential recreation infrastructure in these areas would result in increased management issues and environmental impacts, such as parking pressures and disturbance to sensitive habitats. A petition was drafted and signed by numerous members of the public, wherein they further communicated their concerns related to various Project Alternatives.

Responses to comments

Staff conducted analysis to consider project benefits, feasibility, and public comment in the selection of the Preferred Alternative. The results of this analysis demonstrated that Alternative 5, the “no action” alternative, is preferred for recreation elements on the east side of the Marsh. Staff determined that maintenance of the existing user-created trails in this portion of the study area is most consistent with the existing levels of use in this area, and that the no action alternative would appropriately protect resources into the future.

Conservancy staff presented the “preliminary staff recommended alternative” to the public and Board in September 2014, including the “no action” alternative for east side recreation. Several of the members of the public who had expressed concerns in prior Board meetings voiced support for this recommendation, as it addressed their concerns related to additional infrastructure and potential management and environmental impacts. Additional information in regards to specific comments and responses on this issue, which were received during the formal comment period, can be found in the Sections 3 and 4 of the Final Environmental Document.

Comment letter received regarding the Dunlap Ranch Property, November 12, 2013:

Commenters expressed support for the Project and the importance it will have in restoring water quality and other resources. Commenters discussed concern about public access in the Marsh related to the specific alternatives, due to the potential for increases in trespassing and other management issues such as littering (see attached comment letter for specifics related to the Alternatives). Commenters felt that Alternatives 1, followed by 4, would be the most appropriate, that Alternative 3 would be cost prohibitive, and they do not support Alternative 2. Commenters also raised several specific questions, which are addressed individually below.

Responses to comments

Staff appreciates the careful consideration provided for the various Alternatives presented in the Draft Environmental Document. The Final Document provides substantial information and analysis regarding the screening and selection of the Preferred Alternative, including consideration of costs and other construction feasibility. The Preferred Alternative is the least expensive and most beneficial alternative, and it provides the most appropriate level of recreation infrastructure to complement onsite resources around the Marsh.

Staff also understands that public access and associated management concerns can impact adjacent properties to the Marsh. The various land management issues, as identified by the commenter, are an ongoing concern and the Conservancy will continue to manage the property into the future to address issues such as trash and illegal activities. Management challenges in the Marsh are continually evolving, but the Conservancy's Land Management Program prides itself in responding quickly to citizen concerns as they arise.

Specific questions raised, as summarized below, and responses:

- What would the scope of the easement language look like by alternative? *Easement language has yet to be created, but if the Board approves the Project staff will begin easement negotiation. Staff anticipates that the easement scope will include access for construction and maintenance of restoration improvements, and it will not include public access rights.*
- What specific strategies would take place to reduce trespass during construction and early post construction on to adjacent properties? *Fencing, signage, and other techniques will be used to control use and limit trespass during and following construction. The Conservancy's Land Management Program will continue to respond to various concerns into the future to limit potential impacts to adjacent areas.*
- Where are the Washington Avenue and California Avenue access points and staging areas? *All action Alternatives included a potential access point near the end of Washington Avenue and a possible access and staging location near the end of California Avenue. These potential construction access locations, if permitted by the private property owners, could have provided potential storage and access for equipment and materials. The Preferred Alternative does not propose an access point on Washington Avenue nor access or staging at the end of California (see the access and staging map in Chapter 2 and section 3.1.2 of the Final EIR/EIS/EIS for additional detail and information). Any access to, or use of, private property would need to be allowed by private property owners and negotiated in future easement agreements.*

- Will the project have any effect on the Tahoe Planning ordinance codes that could affect the historic Dunlap Ranch/ urban property? *The Project will not affect the City of South Lake Tahoe Area Plan or the Tahoe Planning Agency Regional Plan, and it will not result in related effects to the Dunlap Ranch/ urban property.*
- Visual concerns were raised related to excavation scarring associated with channel construction and filling. *Short term impacts related to excavation, channel filling, and disturbance is anticipated to varying degree under all Alternatives, including the Preferred Alternative. The disturbance would be limited to the minimum extent achievable, and disturbed areas would be revegetated as soon as possible following earthwork. Stabilization measures, as required for regulatory approvals and discussed in the environmental document, include use of erosion control fabric or other temporary protections, installation of vegetation of various types (seed, stakes, plantings etc.), and irrigation for at least two years to ensure vegetation success. Under the Preferred Alternative, channel excavation is only proposed in the center of the Marsh on State lands, and channel filling is also only proposed on State lands. The Conservancy incorporated various design measures to limit construction impacts such as excavation and filling scarring.*
- What are the anticipated noise impacts and would dust abatement efforts be included? *Sections 3.2 and 3.11 of the Draft EIR/EIS/EIS, and section 2.5 and 3.1.3 of the Final Document, provide additional specifics related to potential impacts and reduction measures related noise and air quality resulting from the Project. Various measures will be implemented, including dust abatement, to keep impacts within regulatory standards and at less-than-significant levels.*
- Will native vegetative species be brought in to stabilize the excavated banks? How and when will this occur? Will funding be determined prior to excavation so there is no down time following excavation? *The project includes extensive planting and revegetation with native species, which will be implemented as soon as possible following excavation. Successful revegetation is required by several regulatory agencies and will be required to be completed according to permit requirements (see Final Document for more detail - section 2.5). Irrigation will assist with plant establishment, and warranty requirements will ensure revegetation success. Funding will be secured for the Project, including the revegetation efforts, prior to excavation of new channels or floodplains.*
- What would be needed from the family as the project moves forward into planning and implementation with regard to time, permissions, money, etc.? And at what points in the project? *The Conservancy will continue to negotiate the aforementioned details with the family through the easement acquisition process. Following potential Board approval of the Project, Conservancy staff would work with the family to draft easement language, further define easement areas, appraise fair market compensation, and work towards an agreement that is acceptable to the family. Easements will need to be executed prior to final project design and construction.*

Public Comments raised by Scott Dietrich regarding several Project elements

In September 2014 Scott Dietrich commented to the Conservancy Board in regards to the Marsh and the preliminary recommended alternative. Commenter questioned the natural delta concept and whether the Marsh would be okay when the river is left to form its own channel network. He also expressed concern over unleashed dogs in the Marsh and potential project impacts of the Project on shorebirds with a suggestion of additional protections such as signage. Mr. Dietrich also asked about the structure across the Sailing Lagoon and asked about modeling for potential Project flood impacts.

Responses to comments

Staff consulted with various expert geomorphologists when screening the Alternatives, and the experts unanimously supported the Alternative 3 concept as the most appropriate for restoring the Marsh and the delta system it once supported. The impacts resulting from unleashed dogs continues to be an ongoing challenge, however Conservancy Land Management actions will continue to address this concern. Section 3.4 of the Draft Environmental Document provides a high level of detail related to the effected environment, Project impacts, and mitigation measures related to wildlife and shorebirds. Section 2 of the Environmental Document conceptually describes the structure at the Sailing Lagoon with conceptual schematic plans for these improvements provided in the appendix. A detailed hydraulic analysis was recently completed for the Preferred Alternative, and the technical flooding memorandum documenting the modeling results was distributed to the public on November 19th 2015, and is an appendix to the Final Environmental Document.

Additional comments raised by Tom Rosenberg, member of the public:

In September of 2014 and again in 2015, California Tahoe Conservancy staff presented Upper Truckee River and Marsh Restoration Project (Project) updates to the California Tahoe Conservancy Board (Board) and the public. No action was recommended, as the purpose of the updates was to report on project progress and to notify the Board and public of the next steps, including upcoming Board approvals to be requested by staff.

After the staff presentations, the Board offered the public an opportunity to provide comments to the Board and staff. Tom Rosenberg, a member of the public and resident of a neighborhood adjacent to the Project, raised several concerns and comments related to the recommended alternative. Mr. Rosenberg also addressed the Board in July of 2014 with similar concerns and comments.

The commenter raised three aspects of the proposed project as briefly summarized below:

1. River rafting take-out and river rafting management issues
2. Updated flood analysis
3. Possible benefit of an additional comment period

Responses to comments

1. The commenter indicated the recommended alternative does not include a river-rafting take-out, as the recommended alternative routes the river to the middle of the meadow and further from the traditional rafting take-out near the end of Venice Drive. The commenter discussed concerns regarding potential issues this modification to raft access may have on the east side and west side of the meadow. Concerns included sanitation, noise, and trash issues, and "so on".

   Response: Staff recognizes that rafting and non-motorized boating on the Upper Truckee River is an ongoing use which can impact adjacent properties as well as other recreational visitors to the Marsh. Rafting use is accompanied by various land management issues as identified by the commenter, and the Conservancy will continue to manage the property into the future to address issues such as trash and illegal activities. Management challenges in the Marsh are continually evolving, but the Conservancy's Land Management Program prides itself in responding quickly to citizen concerns as they arise.

   Staff also acknowledges that the recommended alternative will cause changes to rafting use patterns and accessibility, and the importance of this issue is recognized. Existing rafting use on the river is variable due to natural changes in river flows and weather conditions, and rafters currently enter and exit the river at several different locations. The recommended alternative will alter the river and the associated use patterns, however it is not yet fully known as to how the use patterns and associated management challenges will evolve over time. Under certain streamflow and lake level conditions rafters may continue their voyage down to Lake Tahoe or to locations near a traditional take out at Venice Drive. However, in lower water years and the related challenging rafting conditions similar to 2014 and 2015, it may be preferable for rafters/paddlers to exit the river further upstream.

   The uncertain and speculative nature of future use patterns and the associated management concerns makes it impossible to resolve them at this time, however the Conservancy's Land Management program will continue to respond to citizen concerns and evaluate potential solutions. In addition, the Conservancy is developing land management strategies which will further address ongoing uses within the project area.

2. The commenter noted the importance of the updated Project flood analysis for the City and also for the Tahoe Island Park and Tahoe Keys neighborhoods, and he stated that the updated flood analysis had not yet been released to the public. The commenter also remarked on the importance of the flood modeling spatial resolution and confidence levels, suggesting that a confidence level of 95% or better would be necessary to support the conclusions and findings in the environmental document.

   Response: Staff agrees with the commenter regarding the importance of the updated flood modeling. The updated modeling supplements the information provided in the draft analysis to more fully address the comments and concerns expressed, and it supports the information and conclusions in the project's draft environmental document. The Conservancy released a technical memorandum to the public and interested agencies, describing the methods and

results of the updated modeling effort, on November 19th 2015. The flood memo provides flood history for the neighborhoods, documents the flood hazard areas designated by FEMA, and describes the hydraulic modeling methods, assumptions, and results for both the existing condition, and for the proposed project conditions under the Preferred Alternative. The modeling results confirm the information in the draft environmental document, that the Project will not increase flood hazards to adjacent developed areas.

Technical experts (Cardno Inc.) conducted the updated modeling using detailed and extensive methods to simulate potential flood impacts of the recommended alternative. Cardno performed the modeling with a Federal Emergency Management Agency (FEMA) approved two-dimensional (2D) hydraulic model (XPSWMM) and following FEMA guidelines. The updated model has a very high level of spatial resolution, with high quality topographic data and site specific input information regarding vegetation, land cover, and hydrology. Cardno calibrated the model's representation of a 100-year flood through comparison of the model outputs to the documented flood indicator elevations from the 1997 event. Additional information regarding this modeling effort is available in the technical memo, which is an appendix to the Final Environmental Document.

Staff contacted FEMA to consult about the commenter's request that confidence levels be provided for this floodplain mapping exercise. FEMA clarified that individual hydraulic floodplain mapping efforts completed per FEMA guidance do not report on confidence levels or error bars to ensure model accuracy. Instead, FEMA and the Environmental Protection Agency (EPA) conduct extensive quality control of models prior to including them on the FEMA-approved model list. This FEMA quality control process involves an assessment of model accuracy and confidence levels, such that each individual effort done per FEMA guidance and with a FEMA-approved model, does not report model run-specific accuracy or confidence levels. Based on this guidance received from FEMA, the modeling effort Cardno conducted for the project does not generate the confidence level reporting requested by the commenter, as this type of accuracy assessment has already been completed by FEMA and EPA on the actual model.

In order to provide the highest level of assurance in the updated modeling effort, Cardno incorporated numerous conservative assumptions. The Conservancy requested this approach to reduce uncertainties while providing the highest level of technical surety that the recommended alternative will not adversely impact nearby private properties. Cardno modeled the "worst case" flooding scenario by incorporating several worst case parameter inputs into the model, including but not limited to a high starting lake level, saturated soil conditions, conservative roughness values, and long-duration peak flows. In addition, Cardno only included Project improvements proposed on State lands for the proposed condition model. Because the type of actions proposed on lands not currently under state ownership or control would provide additional flow capacity and conveyance improvements, the proposed condition results as modeled would be the worst-case outcome.

The technical memorandum presents the updated model results for the proposed condition and compares them to the existing condition results in Chapter 7, demonstrating that the Project would not create increase flood elevations on private, developed properties. Based on the verification of the prior analysis results, the guidance from FEMA, the conservative modeling

assumptions employed by Cardno, and additional quantification and spatial detail provided in the output, there is a high level of assurance that the Project will not increase flood hazards to adjacent developed areas.

3. The commenter mentioned that the present suggested alternative is in a "to be determined" state in several important aspects. He specified that the river take out, flood analysis, and the entire section of the river from the U.S. Highway 50 bridge have not been adequately specified in the plan. The commenter stated that several of the proposed enhancements occur on private property making them less clear as to what will actually occur. Commenter also demonstrated support for approving the preferred alternative but requested an additional public review period prior to approving the flood analysis report.

   Response: Staff acknowledges that some minor elements of the recommended alternative are not yet determined at a high level of detail, which is typical of environmental documents that analyze various conceptual and complex alternatives. However, the environmental document adequately describes and analyzes the Project Alternatives, providing the public an informed opportunity to comment on the proposed improvements. Please see the response in #1 above in regards to the raft take out issue. In regards to the flood analysis, the Conservancy released the technical flood memorandum to the public on November 18, 2015 for review and consideration (also see response #2 above).

   Staff also understands that several of the potential actions in the area downstream of US 50 will only occur if negotiations with the property owners are successful. The actions proposed on private lands are compatible with and supplemental to those proposed on public lands, and would result in synergistic benefits to the river and floodplain ecosystem without adverse impacts to flooding or flood hazards. By presenting and evaluating all of the possible actions within the environmental documents, we have fully disclosed the impacts that could occur if all actions were taken. There would not be additional adverse effects relative to baseline if some or all of the features on private land did not occur.

   The proposed improvements in the recommended alternative for these areas are shown in the Alternative 3 schematic design plans, which are part of the draft environmental document (Appendix A). These plans call for the stabilization of the bank just downstream of US 50, the lowering of the floodplain surface in several well defined areas, and the construction of the new pilot channel. The only modification to the schematic plans, which occurred after the draft EIR, was to shift the pilot channel downstream to be constructed only on State lands. This modification was deemed necessary following feedback from some affected private property owners, as they indicated to staff that relocation of the primary river channel was not acceptable on their property.

   Staff recognizes that a slight modification to the schematic plans was necessary to adapt to a private property owner's response, but the revisions to the plans are inconsequential and do not result in new or more substantial impacts. The nature and severity of the impacts analyzed in the environmental document adequately encompass potential impacts of the recommended alternative. The updated pilot river channel location and configuration is consistent with the Alternative 3 concept as it reconnects flows to the middle of the Marsh, and it ensures feasibility

of the Project because it would not require private property owners' permissions to construct. Because this modification is minor and other features proposed on private property were included in the draft environmental document, the public has been provided a sufficient opportunity to comment on the proposed work on private property. The public will have an opportunity to comment at future Board meetings prior to Project construction, however staff feels that the Conservancy has satisfactorily informed the public for the purposes of CEQA and Project approval.