Final

Environmental Impact Report/
Environmental Impact Statement/
Environmental Impact Statement

Upper Truckee River Restoration and Golf Course Reconfiguration Project

Volume IV

Lead Agencies:

California State Parks

Lake Tahoe Environmental Improvement Program

Bureau of Reclamation

September 2011

FINAL

Environmental Impact Report/
Environmental Impact Statement/
Environmental Impact Statement

Upper Truckee River Restoration and Golf Course Reconfiguration Project

Volume IV

Lead Agencies:

California State Parks

P.O. Box 16
Tahoe City, CA 96145

Attn: Cyndie Walck
CEQA Coordinator
(530) 581-0925

Lake Tahoe Environmental Improvement Program

P.O. Box 5310
Stateline, NV 89449

Attn: Brian Judge
TRPA Project Manager
(775) 589-5262

Bureau of Reclamation

2800 Cottage Way, Room E-2606
Sacramento, CA 95825

Attn: Myrnie Mayville
Lake Tahoe Program Manager
(775) 589-5240

TABLE OF CONTENTS

TABLE OF CONTENTS

Section **Page**

Appendices

Exhibits

Tables

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 Restoration and Golf Course Reconfiguration Project (hereinafter referred to as "the project") in compliance with the California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), and 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. It has been prepared by the California Department of Parks and Recreation (State Parks) as lead agency under CEQA; the U.S. Department of the Interior, Bureau of Reclamation (Reclamation), as federal lead agency under NEPA; and the TRPA as lead agency in accordance with the Compact and Code of Ordinances.

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

- California Public Resources Code (PRC) Sections 21000 et seq. (CEQA);
- California Code of Regulations (CCR), Title 14, Division 6, Chapter 3 (State CEQA Guidelines), including Section 15222 ("Preparation of Joint Documents");
- National Environmental Policy Act of 1969, as amended (Public Law 91-190, 42 United States Code [USC] 4321–4347, January 1, 1970, as amended by Public Law 94-52, July 3, 1975, Public Law 94-83, August 9, 1975, and Public Law 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, Sections 1500 et seq., including Sections 1502.25, 1506.2, and 1506.4 (authority for combining federal and state environmental documents);
- U.S. Department of the Interior, Departmental Manual (DM) Part 516, Chapters 1–7 and 14;
- Article VII of the TRPA Compact (Public Law 96-551, as revised in 1980);
- Chapters 5 and 6 of the TRPA Code of Ordinances; and
- Article VI of the TRPA Rules of Procedure.

CEQA, NEPA, and TRPA require a lead agency that has completed a draft EIR/EIS/EIS to consult with and obtain comments from public agencies (cooperating, responsible, and trustee agencies) that have legal jurisdiction with respect to the project and to provide the general public with opportunities to comment on the draft EIR/EIS/EIS. On August 26, 2010, State Parks released the draft EIR/EIS/EIS for a 60-day public review and comment period. In response to public requests, the review period was extended until November 15, 2010. Public hearings were held at the TRPA Advisory Planning Commission (APC) meeting on October 13, 2010, and at the Governing Board meeting on October 27, 2010, 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 2010 draft EIR/EIS/EIS for the project.

1.1 AGENCY ROLES AND RESPONSIBILITIES

1.1.1 LEAD AGENCIES

CALIFORNIA DEPARTMENT OF PARKS AND RECREATION

State Parks is the lead agency under CEQA and the proponent of the project. The agency's mission is to provide for the health, inspiration, and education of the people of California by helping to preserve the state's extraordinary biodiversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation. The 1.4-million-acre State Parks system is made up of 278 classified units and several major unclassified properties.

TAHOE REGIONAL PLANNING AGENCY

TRPA is the primary permitting agency and the lead agency under the Compact. The project would be required to comply with TRPA's Regional Plan and Code of Ordinances to receive permits for construction. Permitting requirements include a Conditional Permit for stream restoration and Land Capability and Coverage Verifications. 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."

In addition, in accordance with the Code of Ordinances, TRPA may not approve a project if it would cause any of the nine TRPA thresholds to be exceeded. 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 6 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. Specific findings TRPA must make to approve a project are as follows:

(1) 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.

(2) The project will not cause the environmental threshold carrying capacities to be exceeded; and

(3) Wherever federal, state or local air and water quality standards applicable for the region, whichever are strictest, must be attained and maintained pursuant to Article V(d) of the Tahoe Regional Planning Compact, the project meets or exceeds such standards.

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 from Reclamation for the planning phase and may receive funding for implementation.

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). Trustee and responsible agencies are

consulted by the CEQA lead agency to ensure the opportunity for input and for 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 jurisdiction by law or that has 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 NEPA process of the lead agency, review and comment on the NEPA document, and use the document when making decisions on the project.

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

FEDERAL COOPERATING AGENCIES

- None

STATE RESPONSIBLE AGENCIES

- Lahontan Regional Water Quality Control Board
- California Tahoe Conservancy
- California Department of Fish and Game

OTHER INTERESTED AGENCIES/PARTIES

- South Tahoe Public Utilities District
- El Dorado County
- Tahoe Resource Conservation District
- California State Lands Commission
- California Air Resources Board
- California Department of Transportation
- State Historic Preservation Officer
- Washoe Tribe of California and Nevada
- Nevada Division of Environmental Protection
- U.S. Army Corps of Engineers
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- U.S. Forest Service, Lake Tahoe Basin Management Unit
- 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 draft EIR/EIS/EIS may be used during agency decision-making processes. The following actions may be under the purview of regulatory agencies other than the lead agencies.

FEDERAL ACTIONS/PERMITS

- **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:** EIR/EIS/EIS review, filing, and noticing; concurrence with Section 401 CWA permit.

- **U.S. Fish and Wildlife Service:** Fish and Wildlife Coordination Act review; if take of a listed species is anticipated, Endangered Species Act consultation and issuance of incidental-take authorization for the take. (However, no take of a federally listed species is anticipated.)

STATE ACTIONS/PERMITS

- **California Department of Fish and Game, North Central Sierra Region:** Streambed alteration agreement (California Fish and Game Code Section 1602) and protection of raptors (California Fish and Game Code Section 3503.5). If take of a state-listed species is expected, California Endangered Species Act consultation and issuance of take authorization (California Fish and Game Code Section 2081). (However, take of a state-listed species is not anticipated.)

- **California Department of Transportation:** possible encroachment permits.

- **State Water Resource Control Board (Lahontan Region 6):** National Pollutant Discharge Elimination System (NPDES) 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. Although State Parks would seek to minimize the risk of construction-related violations of water quality standards, it would nevertheless request an exemption for a potential violation of Section 5.2 of the Basin Plan. Therefore, an exemption from the Lahontan Regional Water Quality Control Board (Lahontan RWQCB) would be required as part of CWA compliance.

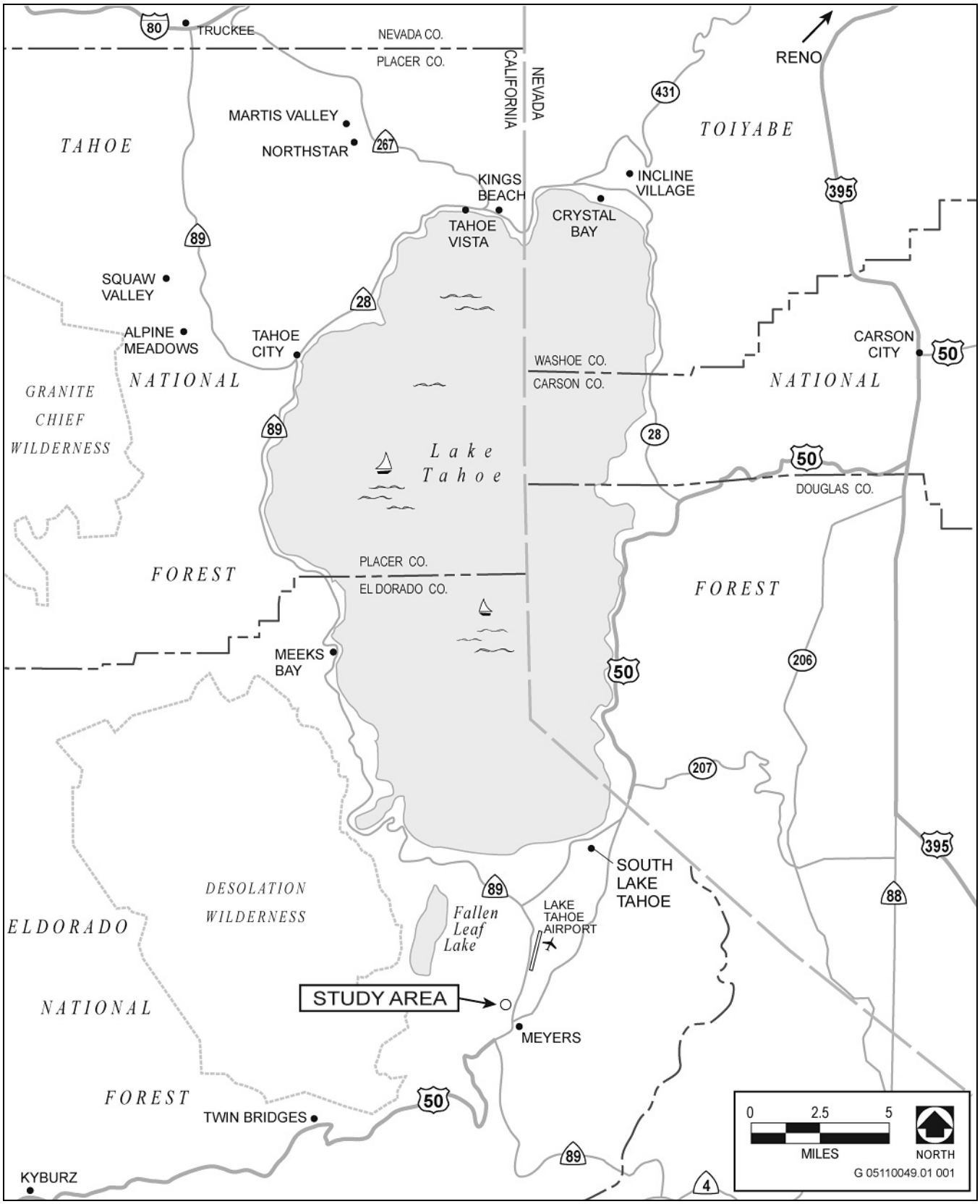
1.2 BACKGROUND

1.2.1 CLARITY AND WATER QUALITY OF LAKE TAHOE

Lake Tahoe is a designated Outstanding National Resource Water, renowned worldwide for its clarity and purity (LRWQCB 1995). However, Lake Tahoe's clarity has declined by nearly 30 percent since 1968 (USGS 2010). 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 Lake Tahoe Basin (Basin) and increased phytoplankton productivity, which in turn, has been attributed to an increase in nutrients, especially nitrogen and phosphorus (Goldman 1974, SWRCB and NDEP 2007). The increase in sediment and nutrient load is a direct result of urbanization and other human activities in the Basin.

The Upper Truckee River, which drains the largest watershed in the Basin, has been substantially altered by land practices during the past 150 years (Exhibit 1-1). Throughout its watershed, the river has experienced ecosystem degradation typical of what has occurred elsewhere in the Basin. It has been modified from its original conditions by human activities, such as logging; livestock grazing; road construction; fire suppression; golf course development; quarry construction, airport construction; and residential, commercial, and industrial development. 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 activities have resulted in reduced habitat quality for plant, wildlife, and fish species in the watershed and increased sediment and nutrient loads discharging into Lake Tahoe from the river, contributing to the declining clarity of the lake.

These alterations have affected water quality by disconnecting the river from its floodplains and wetlands, where fine sediment can adhere to vegetation and vegetation can take up nutrients from streamflows and runoff. Nutrients, such as nitrogen and phosphorus, can be removed by plant absorption and volatilization by denitrification under certain anaerobic conditions. The nutrients are converted to gaseous or organic forms, fixed into the soil, or simply stored within the soil solution. Floodplains also remove sediment and other suspended particles by slowing the velocity of moving water, decreasing peak flows, and allowing the sediment to settle.



Source: Data compiled by EDAW (now AECOM) in 2006

Regional Location **Exhibit 1-1**

Thus, the water quality of the lake can be protected and improved by restoring the natural functions of the rivers and streams in Lake Tahoe's watershed.

1.2.2 UPPER TRUCKEE RIVER WITHIN THE STUDY AREA

Channel straightening, grazing, logging, and recreational uses have affected the reach of the river within the study area where accelerated levels of bed and bank erosion and habitat degradation now exist. A decrease in stream sinuosity and corresponding increase in slope related to past land uses increased erosive forces in the shortened river channel and led to channel incision. This incision has caused a decrease in flooding of the active floodplain. Floodplain connectivity allows a decrease in the velocity of moving water, decreasing peak flows, and allows the sediment to settle, as described above. Since the floodwaters do not release onto a floodplain, the depth of water in the channel is deeper during events that would normally overflow the channel, creating elevated stress on the bed and banks, resulting in increased erosive forces. The stream continues to adjust to past disturbance and has high rates of instability, and instream and riparian corridor habitat continues to be degraded.

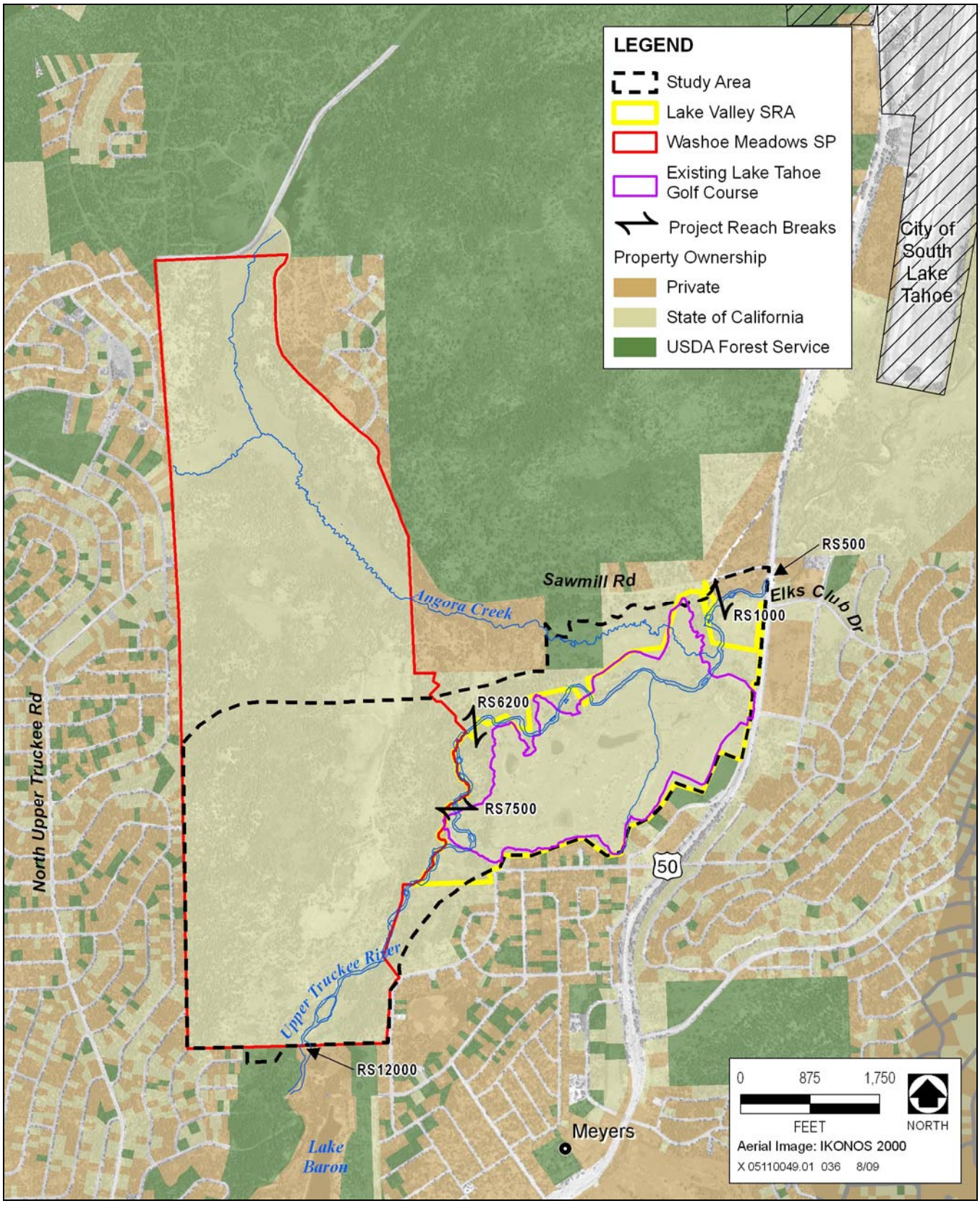
The layout of the golf course is also a concern to geomorphic function and water quality. The golf course was constructed on the meadow and floodplain in the late 1950s. Several undersized bridges constrict flow and accelerate velocities, leading to erosion downstream. The golf course occupies the former meander belt and former wet meadow area along the river, which served as valuable habitat areas before human disturbance. In addition, in many areas of the golf course, nonnative landscaping adjacent to the river and golf course infrastructure essentially lock the river into the modified alignment.

Rapidly eroding, overheightened, fine-grained banks that support limited vegetation or riparian habitat characterize this reach. The banks generate sediment that is introduced directly to the river and eventually into Lake Tahoe. This situation causes not only damage to the golf course infrastructure but deterioration of riparian habitat and degradation of water quality. Limited riparian buffer is present to separate the areas where fertilizer is applied to turf from the river or provide a riparian habitat corridor.

1.2.3 RESTORATION OF THE UPPER TRUCKEE RIVER

Public agencies responsible for the resources of the Basin have been planning and implementing ecosystem restoration and erosion control projects in the Upper Truckee River watershed for many years. Previous restoration efforts in the watershed have included projects along Angora Creek and Trout Creek, both tributaries to the river; the Lower West Side Wetland Restoration Project, located adjacent to the main channel of the Upper Truckee River, near its entry into Lake Tahoe; and the airport reach located in the main stem of the river next to the South Lake Tahoe Airport. Several other restoration projects, including the proposed project, are in the planning stage.

The Upper Truckee River Restoration and Golf Course Reconfiguration Project is identified in TRPA's Environmental Improvement Program (EIP) as a project that is necessary to restore and maintain environmental thresholds for the Basin. EIP projects are designed to achieve and maintain environmental carrying capacity thresholds (thresholds) that protect Lake Tahoe's unique and valued resources. As described in Chapter 2, "Project Description" State Parks is pursuing a restoration project along the reach of the Upper Truckee River that extends from near its upstream entry point near the southern boundary of Washoe Meadows State Park (SP) to the point just west of U.S. Highway 50 (U.S. 50) where the river exits Lake Valley State Recreation Area (SRA). The study area for the project is approximately 520 acres, 13,430 linear feet of the Upper Truckee River, and includes the southern portion of Washoe Meadows SP, Lake Valley SRA, and small portions of U.S. Forest Service (USFS) and California Tahoe Conservancy (Conservancy) lands (Exhibit 1-2). The primary purpose of the project is to restore natural geomorphic and ecological processes along this reach of the river and to reduce the river's suspended sediment discharge to Lake Tahoe. The proposed Preferred Alternative includes modifications of the Lake Tahoe Golf Course to allow for geomorphic restoration of the river, reduce the area of Stream Environment



Source: Data compiled by EDAW (now AECOM) in 2009

Study Area/Property Boundaries **Exhibit 1-2**

Zone (SEZ) occupied by the golf course, and allow for establishment of a buffer area between the golf course and the river, while maintaining approximately the same size and type of course.

1.3 PROJECT HISTORY AND PLANNING CONTEXT

State Parks began restoration studies and planning for the Upper Truckee River Restoration and Golf Course Reconfiguration Project in 2003. This reach of the Upper Truckee River was identified as the greatest opportunity for rehabilitation among all the river reaches in the *Upper Truckee River Upper Reach Environmental Assessment Report* because it presents an opportunity for full restoration of a large reach and is in public ownership by State Parks (SH+G 2003). Comprehensive evaluations of the existing conditions of the study area were conducted in 2003 and 2006 (Swanson Hydrology + Geomorphology 2003, River Run Consulting 2006). These preliminary evaluations allowed the identification of potential restoration opportunities and constraints and led to the recommendation of four river treatment options: (1) no action, (2) hard engineering or engineered stabilization, (3) creation of an inset floodplain, and (4) full geomorphic restoration. Three of the five alternatives analyzed in the draft EIR/EIS/EIS were derived from these original alternatives. The initial definition of alternatives was supplemented by alternatives developed as a result of the public scoping process and early public planning workshops. Two alternative considerations came out of this public input: evaluation of alternative locations for golf course development and addition of an action alternative that involves decommissioning the golf course and fully restoring Lake Valley SRA to riparian and meadow habitat.

The five alternatives addressed in the draft EIR/EIS/EIS are three golf course reconfiguration concept plans (reduced play, reconfigured 18-hole regulation, and no golf course) combined with two alternative river approaches (restoration and stabilization) and a No Project/No Action Alternative. These alternatives were formulated to represent a reasonable range of restoration approaches, golf course facility levels, and public access. A proposed Preferred Alternative has been identified in this final EIR/EIS/EIS based on the impacts analysis presented in the draft EIR/EIS/EIS and public and agency comments received during the comment period. The analysis of the alternatives was based on conceptual designs of both the golf course and the river. The final layout of both would be refined during final design. However, it is expected that any modifications of the final design would be covered by the analysis in this final EIR/EIS/EIS because it addresses the full range of environmental impacts of a reasonable range of alternatives.

1.4 PURPOSE AND NEED, AND PROJECT OBJECTIVES

NEPA regulations (40 CFR 1502.13) 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." State CEQA Guidelines Section 15124(b) requires that the project description contain a clear statement of the project objectives, including the underlying purpose of the project. No requirements specifically address the description of a project's purpose and need in the TRPA Compact or Code of Ordinances. This section is intended to fulfill these requirements of NEPA and CEQA.

1.4.1 PURPOSE AND NEED

The fundamental need for restoration of the study area's reach of the Upper Truckee River stems from its contribution of fine sediment to the river and Lake Tahoe through accelerated bank and bed erosion, the impaired natural geomorphic processes and ecological functions, and the diminished quality of the habitat in the riparian corridor caused by prior human alterations, as described above. The purpose of the project is, therefore, to improve the geomorphic processes, ecological functions, and habitat values of the Upper Truckee River within the study area, 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 the State Park and SRA. Implementation of the project is an important component of the integrated objectives of State Parks, Reclamation, and TRPA to improve environmental quality in the Basin.

1.4.2 PROJECT OBJECTIVES

Consistent with the purpose and need, the following basic objectives of the project were developed during the early planning and public scoping phases of the project:

- Restore, to the extent feasible, natural geomorphic processes that sustain channel and floodplain morphology.
- Restore, to the extent feasible, ecosystem function in terms of ecological processes and aquatic and riparian habitat quality.
- Create a more continuous riparian habitat corridor.
- Reduce erosion and improve water quality including reduction of the State Parks reach's contribution of suspended sediment and nutrient loading in the Upper Truckee River and Lake Tahoe.
- Minimize and mitigate short-term water quality and other environmental impacts during construction.
- Reduce the environmental impact of the golf course on the river's water quality and riparian habitat by integrating environmentally sensitive design concepts.
- In the SEZ, reduce the area occupied by golf course and improve the quality and increase the extent of riparian and meadow habitat.
- Maintain public golf recreation opportunity and quality of play to feasibly support a course.
- Maintain adequate revenue generation from the Lake Valley SRA and/or Washoe Meadows SP.
- Avoid increase in flood hazard to private property.
- Avoid increase in safety hazards to golf course and other recreation users.
- Provide additional opportunities for non-motorized recreation (hiking biking, skiing, etc).
- Design with sensitivity to the site's history and cultural heritage.

1.5 CEQA AND NEPA REQUIREMENTS FOR RESPONDING TO COMMENTS

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

NEPA requires that the final EIS include and respond to all substantive comments received on the draft EIS (40 CFR 1503.4). Lead agency 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. This final EIR/EIS/EIS has been prepared to respond to comments received from agencies, organizations, and members of the public on the 2010 draft EIR/EIS/EIS and to present corrections, revisions, and other clarifications and amplifications to the 2010 draft EIR/EIS/EIS, including project modifications made in response to these comments and as a result of State Parks' ongoing planning efforts.

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 jurisdiction by law 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.

1.6 REQUIREMENTS FOR DOCUMENT CERTIFICATION AND FUTURE STEPS IN PROJECT APPROVAL

The 2010 draft EIR/EIS/EIS and this final EIR/EIS/EIS will be used to support State Parks' and TRPA's decision on whether to approve the project and Reclamation's decision to issue a record of decision (ROD). Agencies, stakeholder organizations, and individuals who commented on the 2010 draft EIR/EIS/EIS will be notified regarding preparation of this final EIR/EIS/EIS. This notification ensures that interested parties have an opportunity to review how the lead agencies responded to public comments on the draft EIR/EIS/EIS.

This final EIR/EIS/EIS will also be used by CEQA responsible agencies, such as the Lahontan RWQCB and California Department of Fish and Game (CDFG), to ensure that they have met the requirements of CEQA before deciding on whether to issue discretionary permits and approvals for portions of the project over which they have authority. This document may also 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 Parks' administrative office at Sugarpine Point State Park
7360 West Lake Boulevard
Tahoma, CA 96142

State Parks' Northern Service Center
One Capitol Mall, Suite 410
Sacramento, CA 95814

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://www.restoreuppertruckee.net/index.htm
http://www.parks.ca.gov/?page_id=981 (click on El Dorado County)
www.trpa.org
http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=5760

Paper copies can be printed for purchase at:

Staples
2061 Lake Tahoe Boulevard
South Lake Tahoe, CA 96150

CDs are also available upon request from State Parks. Please submit request to: utproject@parks.ca.gov.

Please refer to notices of the release of this final EIR/EIS/EIS for the specific dates of public meetings.

The State Parks director will make the decision regarding whether to approve the proposed Preferred Alternative, or a variation of it within the range of alternatives addressed in the environmental document, as the project action. Noticing of the Final EIR/EIS/EIS is being distributed to interested agencies, stakeholder organizations and individual who commented during the process (PRC 15088(bB).

The State Parks and Recreation Commission will hold a public meeting in fall 2011(see public notice for date, time and location) to consider the general plan amendment proposed as part of the project action and to decide whether to certify the environmental document and approve the amendment to the Lake Valley General Plan. If a project is approved, a notice of determination documenting the decision will then be issued by State Parks.
To support a decision on the project, State Parks will prepare and adopt written findings of fact for significant and unavoidable environmental impacts identified in the draft EIR/EIS/EIS, a statement of overriding considerations, if necessary, and a mitigation monitoring and reporting program to ensure implementation of the mitigation measures identified in the EIR/EIS/EIS.

Reclamation will complete a Record of Decision (ROD) on the alternatives at least 30 days after the Environmental Protection Agency publishes their weekly list of EIS's and following certification by California State Parks. The ROD will state the Federal action that will be implemented and will discuss all factors leading to the decision.

The Tahoe Regional Planning Agency (TRPA) Governing Board is tentatively scheduled for December 14, 2012 to vote on certification of the EIR/EIS/EIS. The specific motions are below.

Required Motions: To certify the Final EIR/EIR/EIS for the Upper Truckee River Restoration and Golf Course Reconfiguration Project, the Board must make the following two motions, based on the Final EIS, the TRPA staff summary, and the complete administrative record:

I. A motion to make the Compact Article VII (d) findings for the Final EIS

II. A motion to certify the Final Environmental Impact Statement for Upper Truckee River Restoration and Golf Course Reconfiguration Project.

Dates, time, and location of all public meetings will be posted at: restoreuppertruckee.net.

At least 30 days after publication of the final EIR/EIS/EIS, Reclamation will complete a Record of Decision that identifies Reclamation’s decision regarding the alternatives considered and addresses substantive comments received on the final EIR/EIS/EIS.

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 parts 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 purpose and need, and project objectives to which the lead agencies are responding in considering the alternatives; outlines the organization of the document; provides information on public distribution and the agency approval processes; and identifies standard terminology and abbreviations used in the document.

- **Chapter 2, "Project Description,"** presents a summary of the five alternatives, the selection process for recommending the Preferred Alternative, and a detailed description of the proposed Preferred Alternative.

- **Chapter 3, "Master Responses,"** presents responses to significant environmental issues raised in multiple comments. 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 2010 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 2010 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, "References,**" identifies the documents used to support the comment responses.

- **Chapter 7, "List of Preparers**," lists the individuals who assisted in the preparation of this final EIR/EIS/EIS.

- **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 2010 draft EIR/EIS/EIS consisted of three volumes. Volume I contained the EIR/EIS/EIS introduction, statement of purpose and need, and alternatives descriptions; Volume II described the affected environment, environmental consequences, and mitigation measures for all alternatives within each resource topic area; and Volume III contained the technical appendices. This document is Volume IV and VI of the EIR/EIS/EIS. Together, the five volumes constitute the final EIR/EIS/EIS.

1.8 STANDARD TERMINOLOGY, ACRONYMS, AND OTHER ABBREVIATIONS

1.8.1 STANDARD TERMINOLOGY

The following standard terminology refers to elements of the project:

- **"Project vicinity"** refers to the study area and the nearby land surrounding it.
- **"Study area"** refers to all of the Lake Valley SRA and the southern portion of the Washoe Meadows SP within which all alternatives of the Upper Truckee River Restoration and Golf Course Reconfiguration Project are located.
- **"Project site"** refers to the area within the study area where State Parks would carry out active construction under the selected alternative.
- **"Proposed Preferred Alternative"** refers to the project alternative recommended in the final EIR/EIS/EIS for approval, based on information and analysis in the draft EIR/EIS/EIS, public comments on that document, and responses to significant environmental issues raised in the public comments.

The following specific terminology related to the project is included in the draft EIR/EIS/EIS:

- Terminology related to golf course land use practices is in Section 2.3.2, "Golf Land Management Terminology."
- Terminology related to river existing conditions and proposed treatments within specific locations by alternative are provided in Appendix B.
- Standardized conceptual descriptions and sketches of each treatment type, regardless of which alternative they are proposed for, are included in Appendix C.

1.8.2 ACRONYMS AND OTHER ABBREVIATIONS

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

Table 1-1
Acronyms and Other Abbreviations

ACSP	Audubon Cooperative Sanctuary Program for Golf Courses
ADA	Americans with Disabilities Act
APC	Advisory Planning Commission
APE	Area of Potential Effect
Basin	Lake Tahoe Basin
BMP	best management practice
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
cm	centimeters
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
Conservancy	California Tahoe Conservancy
CWA	Clean Water Act
CWHR	California Wildlife Habitat Relationships
dBA	A-weighted decibels
dbh	diameter at breast height
DFG	Department of Fish and Game
DM	U.S. Department of the Interior Departmental Manual
EIP	Environmental Improvement Program
EIR	environmental impact report
EIS	environmental impact statement
EPA	U.S. Environmental Protection Agency
ft	feet
GIS	geographic information system
gpm	Gallons per minute
GPS	global positioning system
Lahontan RWQCB	Lahontan Regional Water Quality Control Board
LCD	land capability district
L_{eq}	equivalent noise level
LOS	Level of service
LRP	Legally Responsible Person
LRWQCB	Lahontan Regional Water Quality Control Board
LT	Long term
NAL	numeric action level

Table 1-1 Acronyms and Other Abbreviations	
NDEP	Nevada Department of Environmental Protection
NEL	numeric effluent limitation
NEPA	National Environmental Policy Act
NOI	Notice of Intent
NOP	notice of preparation
NPDES	National Pollutant Discharge Elimination System
NRCS	U.S. Natural Resources Conservation Service
ONRW	Outstanding National Resource Water
PAOTs	persons at one time
PAS	plan area statement
PCEs	passenger car equivalents
PRC	California Public Resources Code
PRD	Permit Registration Document
project	Upper Truckee River Restoration and Golf Course Reconfiguration Project
REAP	Rain Event Action Plan
Reclamation	U.S. Department of the Interior, Bureau of Reclamation
ROD	Record of Decision
RWQCB	Regional Water Quality Control Board
SEZ	Stream Environment Zone
SHPO	State Historic Preservation Officer
SP	State Park
SRA	State Recreational Area
ST	Short Term
State Parks	California Department of Parks and Recreation
STPUD	South Tahoe Public Utility District
SWPPP	storm water pollution prevention plan
SWRCB	State Water Resources Control Board
threshold	environmental carrying capacity threshold
TMDL	Total Maximum Daily Load
TRCD	Tahoe Resource Conservation District
TRPA	Tahoe Regional Planning Agency
U.S. 50	U.S. Highway 50
USACE	U.S. Army Corps of Engineers
USC	United States Code
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UTRWAG	Upper Truckee River Watershed Advisory Group

This page intentionally left blank.

2 PROJECT DESCRIPTION

This chapter describes the approach to selection of a proposed Preferred Alternative, including a summary of the other alternatives not selected and the reasoning why these alternatives were eliminated after detailed evaluation. A refined project description for the proposed Preferred Alternative is also presented. The proposed Preferred Alternative is based on additional information developed since release of the draft EIR/EIS/EIS, including comments from the public, responsible and interested agencies, and organizations on the draft EIR/EIS/EIS. Changes to the Lake Valley SRA General Plan are provided in Appendix K and summarized below.

2.1 SELECTING A PROPOSED 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 CEQA, NEPA, and TRPA provisions. In accordance with Section 15126.6 of the State 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, an assessment of whether feasible off-site alternatives exist, and a discussion of on-site 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 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 alternatives 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.

The TRPA Code of Ordinances, Section 5.8 describes EIS requirements. It indicates the need to study, develop, and describe appropriate alternatives to address unresolved conflicts in uses of available resources. Similar to NEPA, TRPA requires that alternatives be analyzed at a comparable level of detail.

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 and TRPA (and more than sufficient under CEQA).

2.1.2 SCREENING METHODOLOGY

Criteria developed from the project purpose and need and project goals and objectives, as described in Chapter 1, "Introduction and Purpose and Need," were used to screen alternatives and to recommend a Preferred Alternative. The primary purpose of the project is to restore natural geomorphic and ecological processes along State Park's reach of the river and to reduce the river's suspended sediment discharge to Lake Tahoe while still providing access to recreation opportunities in Washoe Meadows SP and Lake Valley SRA.

Many of the existing golf course holes are in both the active (i.e., 5-year) floodplain and the historic meander belt of the river. In addition, all of the holes are currently situated in sensitive areas designated as SEZ. If an alternative that includes geomorphic restoration of the river is implemented, the river would regain important natural processes, such as occupying a wider meander belt, reconnecting with the adjacent floodplain, and overbanking into the active floodplain more frequently. Thus, one criterion for reconfiguring golf holes was minimizing golf course area within both the active floodplain and the SEZ to provide room for river restoration. Factors considered in selection of the alternatives include:

- avoiding/minimizing disruption to sensitive resources (e.g., wildlife, vegetation, cultural),
- reducing/minimizing golf course area within the SEZ,
- reducing/minimizing golf course area within the active floodplain,
- reducing/minimizing golf course area within the historic meander belt of the river,
- accommodating dispersed recreation (i.e., hiking, biking, cross-country skiing),
- considering connectivity between golf holes,
- avoiding increase in golf turf area, and
- exchanging acreage between Washoe Meadows SP and Lake Valley SRA while taking into consideration appropriate uses within each boundary.

The alternatives were also reviewed with respect to the existing Lake Valley SRA General Plan and to determine whether amendments or revisions would be required. The Lake Valley SRA General Plan declaration of purpose states that:

> the department shall balance the objectives of providing optimum recreational opportunities and maintaining the highest standard of environmental protection. In so doing, the department shall define and execute a program of management within the unit that perpetuates the units' declared values, providing for golfing along with other compatible summer and winter recreational opportunities while restoring the natural character and ecological values of the Upper Truckee River….

The general plan acknowledges the existing recreational use as including "a popular 18-hole championship golf course" at the time of acquisition and describes it as "an 18-hole, 6,700 yard championship course, including, greens, fairways, traps, roughs, tees,…. and a driving range and instruction area" and recommends that this use continues. Although the general plan does not specifically refer to the golf course as a "regulation" course, the yardage identified in the general plan, the maps included in the plan, and use of the term" championship" in the plan imply that it is a regulation course. In addition, "regulation" is a more standard term than "championship," so it will be used when referring to the golf course described in the general plan amendment.

Finally, the alternatives were screened against the following criteria:

- **Geomorphic criterion:** An alternative, either individually or in combination with features from other alternatives, improves or restores, to the extent feasible, natural geomorphic processes that sustain channel and floodplain morphology while avoiding any increase in flood hazard to private property.

- **Ecosystem criterion:** An alternative, either individually or in combination with features from other alternatives, improves or restores, to the extent feasible, ecosystem function in terms of ecological processes and aquatic and riparian habitat quality, including but not limited to reducing the SEZ area occupied by the golf course to improve the quality of SEZ and to increase the extent of riparian and meadow habitat.

- **Water quality criterion:** An alternative, either individually or in combination with features from other alternatives, reduces stream erosion and improves water quality over the long term, including reducing the reach's contribution of suspended sediment and nutrient loading in the Upper Truckee River and Lake Tahoe.

- **Recreational criterion:** An alternative, either individually or in combination with features from other alternatives, maintains golf recreational opportunities and quality of play; provides opportunities for passive, dispersed, non-motorized recreation (such as hiking, biking, and cross-country skiing), and avoids any increase in safety hazards to golfers and other recreation users.

- **Operational criterion:** An alternative, either individually or in combination with features from other alternatives, improves golf course layout, infrastructure, and management to reduce the environmental impact of the golf course on the river's floodplain, SEZ, water quality, and riparian habitat by integrating environmentally sensitive design concepts.

- **Engineering criterion:** An alternative, either individually or in combination with features from other alternatives, is feasible to design, permit, and construct.

- **State revenue criterion:** An alternative, either individually or in combination with features from other alternatives, is developed, constructed, and operated in a financially responsible and cost-effective manner and generates revenue at a level similar to current levels.

Several alternatives for river treatment were considered during conceptual planning and preliminary assessment of alternative locations for the golf course was conducted in response to early public comments. In both cases, some of the considered alternatives were assessed and found to be infeasible in meeting most of the basic project objectives or in reducing a significant impact of the other alternatives. This preliminary assessment is presented in Section 2.2.2, "Alternatives Considered but Eliminated from Detailed Evaluation," of the draft EIR/EIS/EIS. Therefore, they were eliminated from detailed evaluation. Alternatives passing the screening review were carried forward into the draft EIR/EIS/EIS for detailed evaluation of potential environmental impacts. The overall plan is conceptual, and final design 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 would not substantially increase the intensity or severity of an impact or create a new significant impact. The alternatives carried forward were as follows:

- **Alternative 1 –** No Project/No Action: Existing River and 18-Hole Regulation Golf Course
- **Alternative 2 –** River Ecosystem Restoration with Reconfigured 18-Hole Regulation Golf Course
- **Alternative 3 –** River Ecosystem Restoration with Reduced-Play Golf Course
- **Alternative 4 –** River Stabilization with Existing 18-Hole Regulation Golf Course
- **Alternative 5 –** River Ecosystem Restoration with Decommissioned Golf Course

These alternatives were developed by State Parks, 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 and a recreation planning workshop conducted to obtain additional public input. The full range of reasonable alternatives was presented for public review during circulation of the draft EIR/EIS/EIS. Based on input from responsible and interested agencies and organizations and public comments, the following text presents a summary of the alternatives and reasoning why they were not proposed as the Preferred Alternative by State Parks. Alternative 2, proposed as the Preferred Alternative, is described in detail below. A summary of the river and golf characteristics of each alternative is presented in Table 2-1.

ALTERNATIVE 1 (NO-PROJECT/NO-ACTION): EXISTING RIVER AND 18-HOLE REGULATION GOLF COURSE

For the No Project/No Action Alternative, Alternative 1, 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. Under Alternative 1, existing conditions in the study area would continue into the future. The reach of the Upper Truckee River within the study area would not be restored and would continue to erode and transport sediment to Lake Tahoe, with repairs to the river and golf course infrastructure performed only on an emergency or as-needed basis. The 18-hole regulation golf course would remain as it currently exists, adjacent to the river with an overall footprint of 134 acres, 56 acres in the 100-year floodplain and 128 acres in the SEZ. Five bridges across the Upper Truckee River and four across Angora Creek would remain. Use of the area occupied by the golf course, including cart paths and bridges, would continue without change. There would be no changes to recreational use (trails) in Washoe Meadows SP under Alternative 1. Alternative 1 does not involve altering the existing boundaries in the Lake Valley SRA or in Washoe Meadows SP. An amendment to the general plan text would not be required for this alternative because existing river management approaches and land uses, including golf use, would not change. Because the general plan calls for restoration of the river, this alternative would be inconsistent with the general plan; however, it does not preclude restoration in the future and thus would not require revision.

After a detailed evaluation of Alternative 1, this alternative has not been proposed as the Preferred Alternative for the following reasons:

- It would not reduce or minimize golf course area within the SEZ.
- It would not reduce or minimize golf course area within the active floodplain.
- It would not reduce or minimize golf course area within the historic meander belt of the river.
- It would not meet the geomorphic criterion.
- It would not meet the ecosystem criterion.
- It would not meet the water quality criterion.
- It would not meet the restoration goals as outlined within the Lake Valley SRA General Plan.

Alternative 1would continue existing land use practices within the study area. Golf holes and associated undersized bridges would continue to create erosive forces and water quality impacts adjacent to the Upper Truckee River. While economic and recreational goals would continue to be met, Alternative 1 would not meet the goals of improving geomorphic, ecosystem, and water quality targets.

Table 2-1
Upper Truckee River Restoration and Golf Course Reconfiguration Alternatives Comparison Table

	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Preferred Alternative
RIVER CHARACTERISTICS						
River treatment	None	Restore	Restore	Stabilize	Restore	Restore
Channel length total (feet)	11,840	13,430	13,430	11,840	13,430	13,430
Active (5-year) floodplain (acres)	36	77	77	36	77	77
Inset floodplain (acres)	0	1.7	1.7	0.4	1.7	1.7
Restored SEZ (acres)[1]	0	32	43	0	125[2]	32
Restored 100-year floodplain (acres)[1]	0	20	46	0	54[2]	22
Restored floodplain/meadow (acres)	0	97	112	0	132[2]	97
Anchored high-gradient riffle	NA	Upstream and Downstream ends of project reach				
Boulder steps	NA	1 (water intake)		13–15	0	1 (water intake)
Armored riffles	NA	15–25	15–25	Optional	15–25	15–25
Reconnected historic meander	NA	2,490	2,490	0	2,490	2,490
Constructed new channel	NA	1,700	1,700	0	1,700	1,700
Modified existing channel	NA	5,000	5,000	NA	5,000	5,000
Backfilled existing channel	NA	2,600	2,600	0	2,600	2,600
Rock armor bank protection	NA	200	200	7,500 (outside bends)	200	200
Biotechnical bank treatment	NA	2,400	2,400	7,400 (inside bends)	2,400	2,400
GOLF CHARACTERISTICS						
Golf course type	18-hole regulation	18-hole regulation	9-hole regulation or 18-hole executive	18-hole regulation	None	18-hole regulation
Golf course footprint (acres)	134	156	86	133	3	155
Golf course within SEZ (acres)	128	96	85	128	3	96
Golf course within 100-year floodplain (acres)	56	36	10	56	3	34
Golf course adjacent to the Upper Truckee River (linear feet each bank counted separately)	6,382	850	0	6,382	0	850
Intensively managed turf landscape (acres)	98	85	45	95	0	84
Intensively managed facilities landscape (acres)[4]	6	7	6	7	3	7
Minimally managed landscape (acres)	23	44	24	24	0	48
Naturalized landscape (acres)	7	20	11	7	0	16
Bridges over Upper Truckee River	5	1	0	4	0	1
Bridges over Angora Creek	4	0	0	4	0	0
Bridges over unnamed creek	4	4	4	4	0	4
Additional restroom	No	Yes	No	Yes	No	Yes
Paving of unpaved parking area	No	Yes	No	Yes	No	Yes

Table 2-1
Upper Truckee River Restoration and Golf Course Reconfiguration Alternatives Comparison Table

	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Preferred Alternative
EMPLOYMENT OPPORTUNITIES						
Total number of jobs	76	80	60–65	80	32	80
Change in number of jobs from existing conditions	0	+4	-11 to -16	+4	-44	+4
OTHER RESTORATION						
Quarry wetland enhancement	No	Yes	No	No	No	No
RECREATION CHARACTERISTICS						
Upper Truckee bridges open to public access	No	1	NA[4]	No	NA[4]	1
Trail along east side of river with Sawmill Bike Trail connection	No	Yes	Yes	No	No	Yes
Trail to corner of Country Club Drive	No	Yes	Yes	No	No	Yes
Improve/reroute trails on west side of river	No	Yes	No	No	No	Yes
Add minor access enhancement at public right(s)-of-way into Washoe Meadows SP (small parking area)	No	Yes	Yes	Yes	Yes	Yes
GENERAL PLAN CHARACTERISTICS						
Lake Valley SRA acreage	173	213	120	173	0	213
Washoe Meadows SP acreage	608	568	661	608	781	568

Note: The overall plan is conceptual, and final design may be modified to satisfy parties involved in the final decision-making process. These modifications would not substantially increase the intensity or severity of an impact or create a new significant impact

[1] Represents restored SEZ or floodplain that was formerly golf course, but does not include increase in the SEZ or floodplain due to restoration of improved geomorphic function. Increase in total floodplain area discussed in Section 3.3, "Hydrology and Flooding."

[2] Acreage proposed for full restoration but future planning efforts may allow for other compatible land uses.

[3] Intensively managed facilities includes buildings, parking lots, and cart paths. Cart paths would be removed under Alternative 5 but not other facilities.

[4] All bridges removed.

Source: Compiled by AECOM and State Parks 2011

ALTERNATIVE 3: RIVER ECOSYSTEM RESTORATION WITH REDUCED-PLAY GOLF COURSE

Alternative 3 would involve full geomorphic and ecosystem restoration of the Upper Truckee River and provision of a reduced-play golf course. A 13,430-foot reach of the Upper Truckee River and adjoining floodplain would be restored. The golf course would be reduced in size to remove golf course from much of the historic meander belt, allowing space for the river restoration. Only a reduced-play golf course, such as an 18-hole executive or 9-hole regulation course, would be feasible within the remaining area outside the restored floodplain. The footprint would be 86 acres, 10 acres in the 100-year floodplain and 80 acres in the SEZ. A portion of the existing golf course would be reconfigured on the southeast side of the river to allow for a buffer between the river and the golf course. No golf holes would be located on the west side of the river. All five bridges would be removed from the Upper Truckee River, and four bridges would be removed from Angora Creek. A new trail would be constructed on the southeast side of the river. Except for river restoration in areas of the historic meander belt, no construction would occur on the west side of the river in Washoe Meadows SP under Alternative 3.

Alternative 3 would reduce the size of the golf course footprint and increase the area of restored riparian area; therefore, changes in the boundaries between Washoe Meadows SP and Lake Valley SRA would be made to adjust the SRA boundary to fit the smaller golf course. In keeping with the respective purposes of Washoe Meadows SP and Lake Valley SRA, the boundary of Washoe Meadows SP would be adjusted (in this case,

expanded) to encompass all of the restored river and riparian corridor. The text of the general plan would need to be amended to allow for development and management of the reduced-play golf course. An interim management plan, which would provide for access and resource management of Washoe Meadows SP, would be prepared. It would address resource protection, public access, and use issues in Washoe Meadows SP, and future planning efforts could be undertaken to allow for recreational development of Washoe Meadows SP under a separate project.

After a detailed evaluation of Alternative 3, this alternative has not been proposed as the Preferred Alternative for the following reasons:

- It would not fully meet the recreational criterion.
- It would not fully meet the operational criterion.
- It would not fully meet the State revenue criterion.
- It would not fulfill the need for an 18-hole regulation golf course as outlined in the Lake Valley SRA General Plan.

Alternative 3 would modify existing land use practices within the study area. Golf holes adjacent to the Upper Truckee River and associated undersized bridges would be removed, improving geomorphic and ecological functions by decreasing erosive forces and water quality impacts, and improving habitat of the Upper Truckee River and the surrounding SEZ. However, economic and recreational goals would not be fully met under Alternative 3. An 18-hole regulation golf course would not be feasible under Alternative 3, eliminating tournaments that currently provide both economic and recreational opportunities that do not exist elsewhere in the Basin at a reasonable cost to the user. Furthermore, as discussed in the draft EIR/EIS/EIS and presented at public meetings, the economic feasibility to operate a 9-hole or smaller 18-hole course would not be a viable option for potential concessionaires.

ALTERNATIVE 4: RIVER STABILIZATION WITH EXISTING 18-HOLE REGULATION GOLF COURSE

Alternative 4 would use a combination of hard and soft stabilization to keep the river in its present configuration and includes only minor changes to the existing golf course, including the addition of a restroom near hole 5 and paving and lighting of the unpaved parking area. It would involve the systematic and extensive installation of bank protection and grade controls within the present river alignment at the existing elevations. While the streambed and streambank protections would be relatively rigid, biotechnical treatments with native riparian vegetation would be incorporated to the maximum extent possible while still ensuring stabilization of the river to minimize erosion. Use of biotechnical treatments would restore some habitat value to the riparian corridor but would not improve the floodplain function or restore natural geomorphic processes of the river. Because the river would be stabilized in place, the existing 18-hole regulation golf course would remain largely unchanged. The footprint would be 133 acres, 56 acres in the 100-year floodplain and 128 acres in the SEZ. Three of the existing Upper Truckee River bridges would remain in place, but the two upstream bridges would be replaced by one longer bridge. No bridges would be removed along Angora Creek or the unnamed creek, and no recreation trails would be developed.

Alternative 4 would involve only slight configuration changes of the existing golf course related to the bridge replacement and would not involve modifying its footprint; therefore, no changes in the boundaries between Washoe Meadows SP and Lake Valley SRA would be necessary. The existing Lake Valley SRA General Plan statement of purpose calls for “restoring the natural character and ecological values” of the Upper Truckee River. The text of the general plan would need to be revised under this alternative. An interim management plan, which would provide for access and resource management of Washoe Meadows SP, would be prepared, and future planning efforts could be undertaken to allow for recreational development of Washoe Meadows SP under a separate project.

The general plan’s resource policy states that a river management plan shall be implemented that restores a “more natural channel configuration” and “riparian habitat,” among other things, and that gives foremost consideration

to minimizing "hard engineering." The approach in Alternative 4 with the river largely stabilized in place would be different from the directives of the general plan for restoring a more natural channel. The use of biotechnical stabilization techniques would improve some riparian habitat values, but it would not minimize hard engineering or constitute restoration of a natural channel as contemplated in the general plan.

After a detailed evaluation of Alternative 4, this alternative has not been proposed as the Preferred Alternative for the following reasons:

- It would not reduce or minimize golf course area within the SEZ.
- It would not reduce or minimize golf course area within the active floodplain.
- It would not reduce or minimize golf course area within the historic meander belt of the river.
- It would not meet the geomorphic criterion.
- It would not meet the ecosystem criterion.
- It would only partially meet the water quality criterion.
- It would not meet the restoration goals as outlined within the Lake Valley SRA General Plan.

Alternative 4 would continue existing land use practices within the study area. Because the river would be stabilized in place, the existing 18-hole regulation golf course would remain largely unchanged, allowing recreational and economic goals to continue to be met. While erosive forces and water quality impacts from those forces would decrease, golf course holes (and associated irrigation and fertilizer practices) would remain located in areas adjacent to the Upper Truckee River within the SEZ. Economic and recreational goals would continue to be met; however, Alternative 4 would not meet the goals of improving geomorphic, ecosystem, and habitat targets.

ALTERNATIVE 5: RIVER ECOSYSTEM RESTORATION WITH DECOMMISSIONED GOLF COURSE

Alternative 5 involves decommissioning and removing the 18-hole regulation golf course to restore all or a portion of the golf course footprint to meadow and riparian habitat. A 13,430-foot reach of the Upper Truckee River and adjoining floodplain would be restored. All five Upper Truckee bridges and four Angora Creek bridges would be removed. Golf holes would be removed from sensitive lands adjacent to the river much of the footprint would be restored as native meadow and riparian habitat. The clubhouse facility, parking area, and maintenance yard would remain, and the clubhouse would be available for public use at a later date.

Alternative 5 would eliminate golf recreation on Lake Valley SRA, which is a primary purpose for the SRA. In light of the decommissioning and removal of golf course facilities, the primary purpose of the SRA would be eliminated. Consequently, State Parks would revoke the existing Lake Valley SRA General Plan and reclassify the former SRA to become part of a single unit with Washoe Meadows SP. All land of the former SRA would be classified as state park. Maintaining the unit in perpetuity as an ecosystem restoration area with limited public access or outdoor recreation use would not be feasible because of the unmet demand for outdoor recreation in the state and the mission of State Parks. In time, some form of public access and/or development of outdoor recreation facilities would need to be implemented, in keeping with the mission of the department.

If economically feasible, a 9-hole golf course may remain temporarily in use while State Parks evaluates whether to initiate planning for alternative State Park uses. If a reduced-play course remains temporarily, it would be physically configured similar to Alternative 3.

After a detailed evaluation of Alternative 5, this alternative has not been proposed as the Preferred Alternative for the following reasons:

- It would not meet the recreational criterion.
- It would not meet the operational criterion.
- It would not meet the State revenue criterion.

- It would not fulfill the need for an 18-hole regulation golf course as outlined in the Lake Valley SRA General Plan.

Alternative 5 would involve modifying existing land use practices within the study area. The 18-hole regulation golf course and associated undersized bridges would be removed, improving geomorphic and ecological functions by decreasing erosive forces and water quality impacts, and improving habitat of the Upper Truckee River and the surrounding SEZ. However, economic and recreational goals would not be fully met under Alternative 5 because it would involve eliminating golf recreation and tournaments that currently provide both economic and recreational opportunities that do not exist at a reasonable rate to the user elsewhere in the Basin.

2.2 PROPOSED PREFERRED ALTERNATIVE: RIVER ECOSYSTEM RESTORATION WITH RECONFIGURED 18-HOLE REGULATION GOLF COURSE (ALTERNATIVE 2 SLIGHTLY MODIFIED)

A refined version of Alternative 2 is proposed by State Parks as the Preferred Alternative, hereafter referred to as the Preferred Alternative because it best meets the project's basic objectives among the evaluated alternatives. The refined description of the Preferred Alternative was developed based on the analysis contained in the draft EIR/EIS/EIS; input from the public, organizations, responsible agencies, and other interested agencies; and comments on the draft EIR/EIS/EIS. The refined description of the Preferred Alternative is presented below.

The Preferred Alternative plan is conceptual, and acreages have been modified from the description of Alternative 2 in the draft EIR/EIS/EIS to further address public access issues, such as trail safety, as well as protection of sensitive resources and management considerations. The final design 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. However, these modifications are not expected to substantially increase the intensity or severity of an impact or create a new significant impact. Minor modifications presented below do not require recirculation of the EIR or a supplement to the EIS because these modifications do not change any significance conclusions presented in the draft EIR/EIS/EIS. It is expected that any potential project changes occurring during the final decision-making and design process would also be covered by the analysis presented in the EIR/EIS/EIS, subject to CEQA statutes and guidelines. The amendment of the Lake Valley SRA General Plan, required as part of the implementation of the Preferred Alternative, is summarized below and provided in Appendix K. The general plan amendment was evaluated as part of the combined EIR/EIS/EIS prepared for the project. The Preferred Alternative would involve removing several existing golf course holes located in areas of the active floodplain, the SEZ, and the historic meander belt of the river. If these changes were implemented, the river would regain important natural geomorphic processes, such as occupying a wider meander belt, reconnecting with the adjacent floodplain, and overbanking into the active floodplain more frequently. While the overall footprint of the golf course would increase slightly, most of the areas relocated would be within higher capability lands (mostly away from the river and outside of the SEZ) and overall turf area would decrease while turf management would be improved (irrigation upgrades and more naturalized areas). Implementing the Preferred Alternative would allow the continuation of an 18-hole regulation golf course and associated tournaments, thus meeting geomorphic, ecological, recreational, operational, and revenue criteria while still providing dispersed recreation, including new trails along the east side of the river and connectivity to Sawmill bike path.

The reconfigured golf course design concept is intended to make the best use of the site, provide a variety of recreation values, and maintain a proper relationship to the environment and adjacent land uses while remaining flexible to unexpected design details that may come up in the future. Golf infrastructure and holes would generally avoid the most sensitive areas adjacent to the river, which would allow the river room to function more naturally and would provide a more continuous riparian habitat corridor. Alternative 2 was identified as the Preferred Alternative for the following reasons:

- It would allow room for geomorphic and ecological restoration of the river, while accommodating continuation of an 18-hole golf course.
- It would minimize connectivity of the golf course and the river.
- It would minimize or avoid sensitive archaeological sites and sensitive ecological habitat.
- It would maximize golf use of higher capability lands and minimize use of SEZ lands.
- It would include trail alignments for nongolf use that connect to the existing trail network and provide for safe use and enjoyment by Washoe Meadows SP and Lake Valley SRA visitors.

2.2.1 PROJECT FEATURES

The Preferred Alternative involves river ecosystem restoration with a reconfigured 18-hole regulation golf course. The current 11,840-foot-long reach of the Upper Truckee River would be restored to 13,430 feet with additional floodplain area. Several golf course holes would be relocated to an area on the west side of the river that contains less sensitive land that is further from the river. This would also reduce the amount of SEZ and 100-year floodplain occupied by the golf course (Exhibit 2-1 and Exhibit 2-3). All five existing bridges would be removed from the Upper Truckee River, and one new, longer bridge would be constructed. Four bridges would also be removed from Angora Creek. New trails would be constructed on both sides of the river with connectivity to the Sawmill bike path.

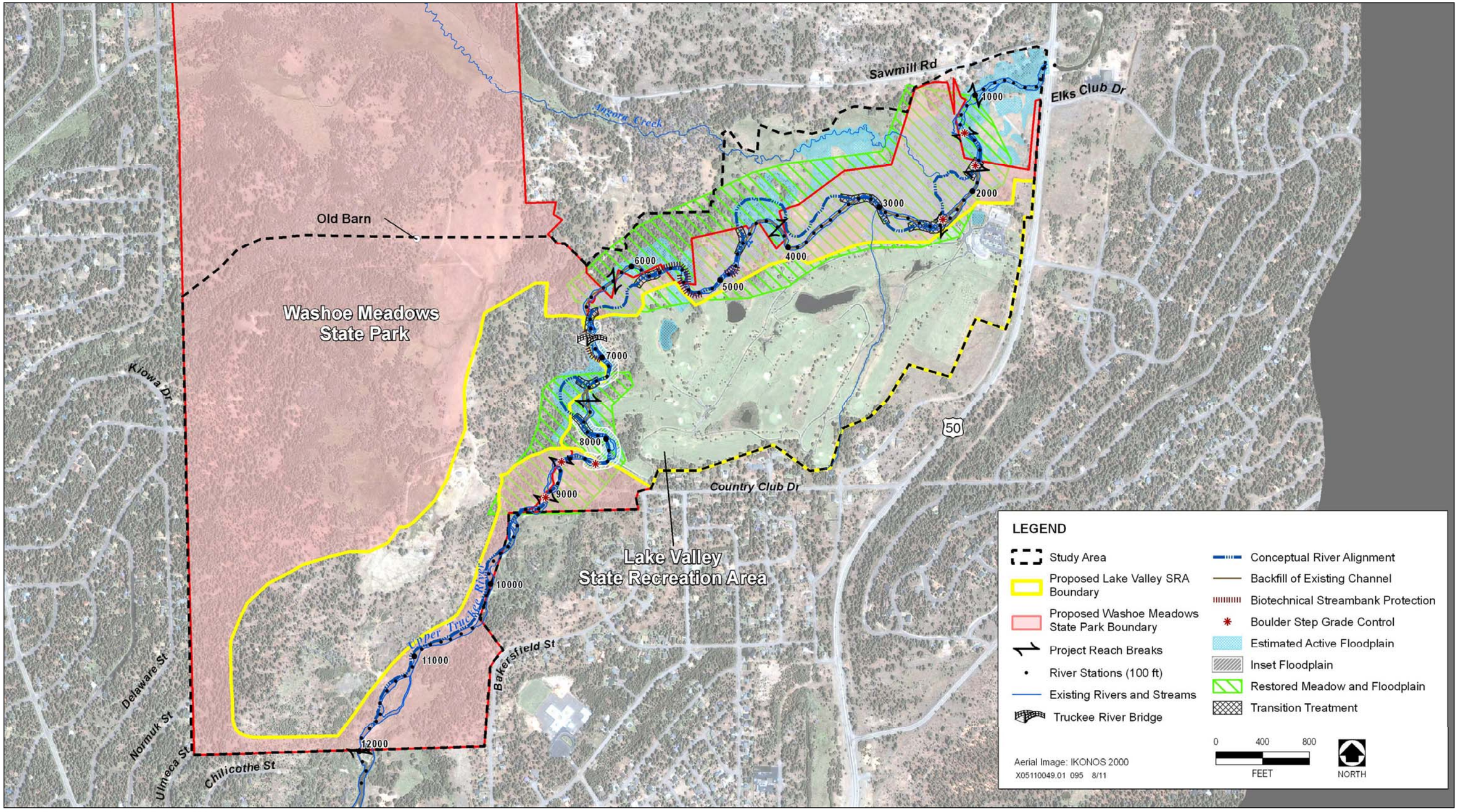
The boundaries between Washoe Meadows SP and Lake Valley SRA would be modified so that the SRA would encompass the reconfigured golf course and the restored river would generally become part of Washoe Meadows SP. The southern portion of the South Tahoe Public Utility District (STPUD) access road would also become part of the SRA. The text and maps of the Lake Valley SRA General Plan would be amended to reflect management of the reconfigured golf course.

RIVER AND FLOODPLAIN

Approach

Under the Preferred Alternative, land uses associated with the golf course would be removed from areas adjacent to the Upper Truckee River which have been occupied by the river in the "recent" past to make room for a more meandering channel and more floodplain area. A portion of the golf course would be relocated primarily to less sensitive higher capability lands, more distant from the river. Under this conceptual design, the amount of golf course adjacent to the Upper Truckee River would decrease from 6,382 linear feet to 850 linear feet by increasing a natural vegetated buffer width from approximately 75 to 100 feet in most areas. While an additional length of golf course would run parallel to the Upper Truckee River, it would be outside the active floodplain and more distant from the river. The increase in the extent of the vegetative buffer would increase treatment areas for protection of water quality from associated golf course land use, and adjoining riparian vegetation communities would be restored. Treatments are also proposed along the lower portion of Angora Creek and the unnamed creek to reconfigure the confluence with the Upper Truckee River.

The restoration approach is designed to reverse the negative trends caused by past channelization, existing infrastructure, and associated land uses. The restoration aspects of this alternative would increase channel length and elevate the channel bed through a combination of grade control features in the existing channel bed, reconnection of historically cutoff or abandoned meanders, and construction of new channel sections. This approach uses elements of both form-based and process-based design (River Run Consulting 2006:2). Meanders that were cut off in the 1940s and 1950s, many of which are still visible on the terrace, would be reincorporated as active channel, and approximately one-half of the existing channel would be retained. The overall approach would decrease erosive force and increase floodplain inundation and duration, thereby reducing sediment supply and providing more opportunity for fine sediment deposition. It would also actively restore riparian habitat adjacent to the river.



Source: Data provided by State Parks in 2011

Proposed Preferred Alternative: River Ecosystem Restoration **Exhibit 2-1**

The river would have an increased channel length of 13,430 linear feet and an active floodplain of 77 acres, including the constructed inset floodplain of 1.7 acres. Approximately 97 acres of floodplain and meadow would be restored, 23 acres within the 100-year floodplain and 32acres in the SEZ. Most of the golf course would no longer be adjacent to the river; 850 linear feet (425 feet on each side of the river) would remain, in the vicinity of the proposed replacement bridge. The channel bed would be elevated approximately 2 feet on average throughout the project reach.

This design does not rely on or advocate full construction of the envisioned final dimension of the channel form. Rather, it removes infrastructure that prohibits natural processes and provides basic form and grade. Therefore, it anticipates that natural geomorphic processes, such as deposition and active movement of gravel bars, recruitment of woody debris, substrate sorting, and vegetation establishment, would modify the constructed bed and bank features over time to establish a site-specific final channel form.

Design Features

Under the Preferred Alternative, sections of the existing channel would be incorporated into the new channel, historic meanders would be reactivated, and new sections of channel would be constructed. This combination would provide the desired sinuosity and slope. Approximately 4,240 feet of the existing channel would be used without modification, 5,000 feet of the existing channel would be modified (as described below), 2,490 feet of historic channel remnants would be reconnected, and 1,700 feet of new channel would be constructed. The numeric estimates of length, area, and volume in this section are based on conceptual design and would be modified during final design (Exhibit 2-1). Conceptual treatment descriptions and typical sketches are presented in Appendix C of the draft EIR/EIS/EIS.

The reactivated/reconnected historic meanders would generally utilize the existing outside bank with mature vegetation. The bed, inside bank, and transitions would need to be modified. Constructed streambed stabilization features, including grade control via anchored high-gradient riffles at the upstream and downstream treatment extents, a boulder step grade control at the irrigation water intake, and 15–25 armored riffles at crossovers (i.e., between meanders) and channel segment transitions, would be installed. Approximately 2,600 feet of existing channel would be backfilled or partially backfilled to restore about 4.5 acres of floodplain. Inset floodplain areas would be excavated along approximately 1,300 feet of channel. Additional local cut and fill would be used at various locations to adjust channel dimensions, channel bed elevation, and streambank heights and angles.

Where existing channel is to be incorporated into the new channel, approximately 2,700 feet of new streambank stabilization materials would be installed. Bank stabilization would be mostly biotechnical, emphasizing use of live vegetative materials on banks with reduced heights and angles. However, some areas where more stabilization is needed (e.g., near sewer lines) would also require rock armor streambank protection and/or engineered large woody debris features. It may be necessary to relocate some sewer line sections. Most of the 1,750 feet of existing bank protection would be removed, and the materials would be evaluated for reuse.

Reconfiguration of the golf course out of much of the floodplain and historic meander belt would allow for ecosystem restoration of the Upper Truckee River. Removal of golf course adjacent to the river would allow for restoration of the entire floodplain and meadow north of the river (along Angora Creek) and a large area of the floodplain southeast of the river. All four golf cart bridges would be removed from Angora Creek.

All five golf course bridges over the Upper Truckee River would be removed, and one longer bridge would be installed. This would allow more natural channel dynamics through most of the study reach and minimize risks to infrastructure while providing access to newly developed, more ecologically designed golf features west of the river. The storm drainage pond between the existing holes 14 and 15 would be converted to wetland unless deemed infeasible due to final design of the proposed golf course, the channel and riparian corridor of the unnamed creek would be enhanced, the four golf cart bridges would remain, and the confluence of Angora Creek would also be reconfigured (as discussed below).

The expected geomorphic features, processes, and functions of the study area under the Preferred Alternative are summarized below.

Upper Truckee River

Alignment

The approximate pre-1940 Upper Truckee River alignment serves as the basis for the proposed location of the restored channel (River Run Consulting 2006). The 1940 historic aerial photos show several meanders that were cut off around that time, reducing sinuosity and increasing slope. The meanders were likely physically cut off by human manipulation to decrease flooding and improve grazing, although some may have been naturally abandoned.

The proposed alignment would increase sinuosity, reduce slope, and increase floodplain area. It is based on a conceptual design that may be modified during final design, but generally it would be composed of a combination of existing (unmodified) channel, modified existing channel, reconnected historic channel (abandoned meanders), and new constructed channel sections. Some portions of the existing channel proposed to remain as active channel would not be modified for the project. The proposed channel length would be 13,430 feet, which would be 1,590 feet longer than the existing 11,840 feet of channel, an increase of 13.4 percent, and the channel would be reconnected to the historic floodplain.

Abandoned meanders proposed for reconnection still have a visible channel shape in both cross section and planform, although some deposition of sediment and encroachment by vegetation has occurred since remnants were part of the active channel. Existing mature riparian vegetation would be incorporated as an immediately well-vegetated outside bank, while other areas of vegetation could be salvaged and used for transplanting. The meander dimensions and elevations would be graded where needed and disturbed areas treated with transplants or other biotechnical techniques. In the lower half of the meadow reach, most of the meanders visible in the 1940 aerial photograph were subsequently filled as part of the original golf course construction (River Run Consulting 2006). In the areas where there are no abandoned meanders with remnant topography or vegetation suitable for reconnection as part of an active river channel, two new channel sections would be created. Mature vegetative materials salvaged from the other historic meanders would be used in construction of these meanders. The final channel alignment for the restored segment would be updated during detailed design based on hydraulic analyses or other design factors (e.g., aquatic habitat, infrastructure locations). Where a reactivated meander or new channel reach may encroach near the existing sewer line, protective features would be installed to avoid damage to the line (i.e., alignment adjustment, sheet pile or other physical protection, or relocation of a section of the sewer line away from the restored river meander). The new alignment would increase channel length in all the treated subreaches from 10 to 60 percent. The percent increase in overall channel length for the study area is approximately 13 percent, allowing the profile grade transition to be distributed over a longer reach and resulting in a lower gradient.

Profile

The channel bed and resulting long profile would be directly modified to raise the channel bed and indirectly encourage future sediment storage and aggradation. Measures used for these modifications would include reoccupying abandoned meanders present on the existing terrace surface, as well as constructing new channel sections with higher bed elevations, resulting in longer length and decreased slope. Measures within the existing channel would include installing raised grade boulder steps and armored riffles. Proposed locations of the boulder step and armored riffle bed stabilization structures (Exhibit 2-1) have been selected to achieve reachwide stability and minimize erosion, channel avulsion, and damage to infrastructure (exact locations and number may be modified in final design). The boulder steps would require about 6,200 cubic yards of mixed rock (boulder through gravel), and the armored riffles would require about 16,500 cubic yards of cobble and gravel. In addition, clean gravel and cobble could be added to various sites along the channel (quantity not estimated at this time).

Channel lengthening alone would reduce the overall average bed slope for the entire project reach (RS 160 to RS 12000) from 0.22 percent to 0.19 percent. The desired profiles would create a smoother slope transition between the upstream and downstream reaches and create a riverbed closer to the surrounding terrace surface (River Run Consulting 2006). The conceptual proposed channel bed profile (Exhibit 2-2) was derived by connecting proposed bed elevations at the upstream and downstream ends of the treated reaches along the length of the new alignment and adjusting for the existing higher slopes in forested and transition reaches (River Run Consulting 2006). Resulting bed slopes in the treated subreaches would range from 0.14 percent to 0.19 percent.

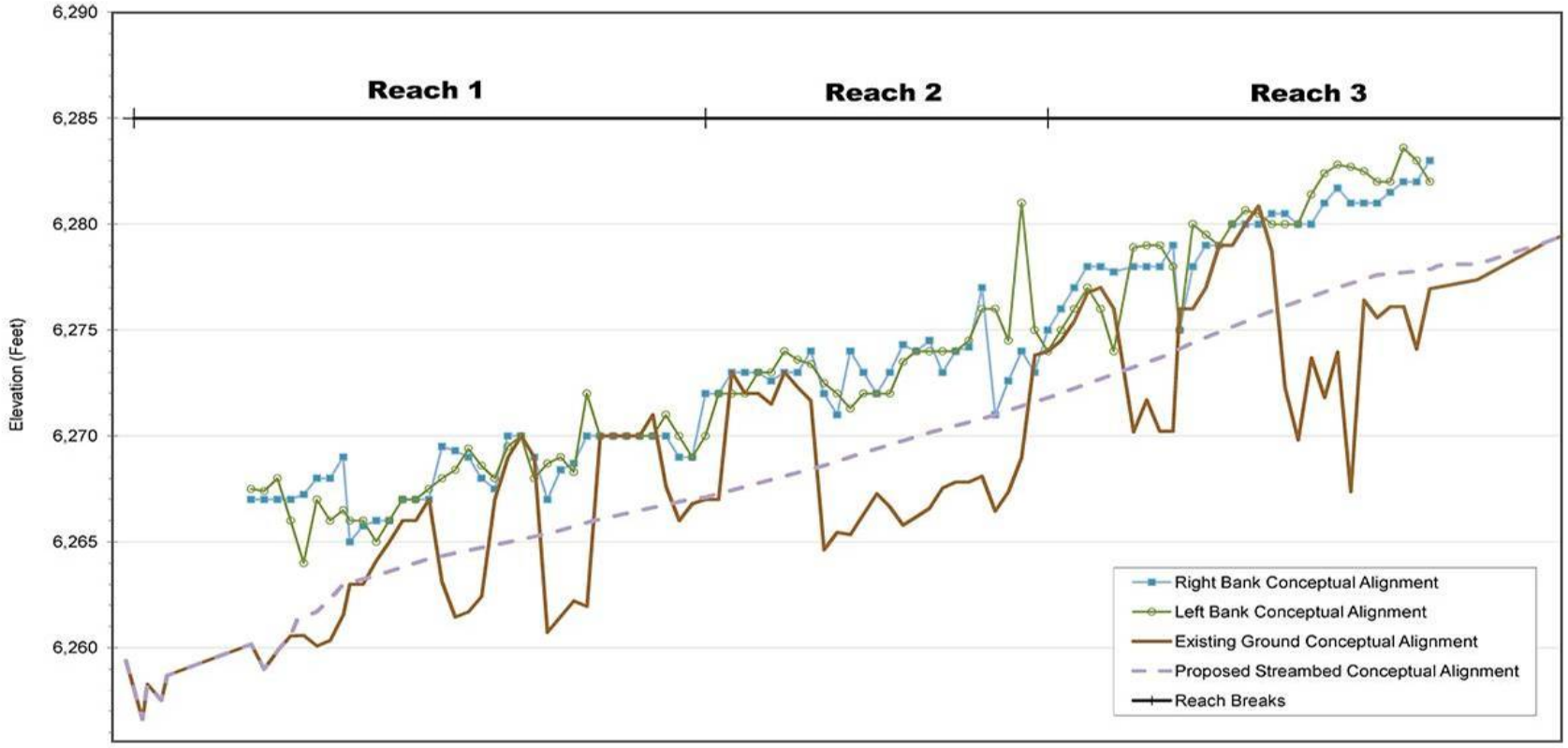
As previously described, varied forms of grade control would be used: anchored high-gradient riffles (boulder and cobble) at the upstream and downstream ends of the treated reaches, a boulder step (boulder and cobble at the water intake), and armored riffles (cobble and gravel), requiring different materials and construction techniques. Anchored high-gradient riffles would be at the upstream and downstream extents of the project and would be reach scale (300-400 feet) features with a combination of about three boulder steps and integrated cobble riffles. The reach-long treatments would use a boulder-cobble mix to form an undulating surface that would be installed in the existing river channel near the downstream and upstream ends of the restored channel. They would both raise and stabilize the streambed, acting as hard grade control structures, composed of boulders and cobble-sized material and installed to remain immobile even during large flood flows (e.g., greater than 100-year peak flow) (River Run Consulting 2006). The current boulder step grade control at the irrigation water intake would be modified and raised slightly. To ensure vertical and lateral stability, grade controls would have buried (keyed) boulders below approximately the 100-year scour depth and would include wings for flanking protection at the upstream and midpoints, extending approximately one-quarter of the channel width into the floodplain at each bank. About 6,200 cubic yards of material would likely be required for the grade control features.

Armored riffles would act as hydraulic controls to establish and maintain bed elevation and slope and would be distributed throughout the restored channel reach. Spacing between riffles would be approximately five to seven bank full channel widths, as documented for functional alluvial channels (Knighton 1998, cited in River Run Consulting 2006). These features would be located at crossovers between meander bends, including at the transitions into meanders to be added (upstream and downstream ends of connections to historic or constructed meanders), as well as in crossovers of retained channel. This would provide continuity in the longitudinal profile. The armored riffles would be soft-grade control structures made of cobble-sized material designed to remain immobile up to moderate flood flows (e.g., 10- to 20-year peak flow) (River Run Consulting 2006). Buried coarse substrate (e.g., cobble) may also be extended at least one-fourth the channel width or to the edge of the active floodplain (5-year) in a trench at the upstream end of the riffles. While the surface materials of these riffles would be expected to be mobile during moderate flood flows, the elevation of the features would be expected to remain consistent over time.

The distance between armored riffles would be about five to eight times the channel width; for example, in areas where restored channel width is proposed to be approximately 70 feet, the spacing would be 350–500 feet (River Run Consulting 2006). The conceptual length and spacing indicate that riffles would compose approximately one-third (2,478 feet) of the total restored channel length. The concept is to use the armored riffles to absorb the full proposed bed elevation change within the restored segment (approximately 11.0 feet vertical change over 7,435 feet planform), with resulting riffle slopes of about 0.15 percent. For the conceptual design, riffles are assumed to average 60 feet wide and 2–3 feet thick (greater in the existing channel areas, less within reconnected or constructed sections) with additional extension of gravel for approximately 30 feet on to the floodplain. Approximately 16,500 cubic yards of cobble would be imported for constructing the riffles.

Banks

The Preferred Alternative involves modifying and protecting streambanks of the proposed channel using a mixture of bank treatments designed and implemented in conjunction with the overall channel treatments to modify existing channel sections, reconnnect historic channel sections, and/or construct new channel sections.



Source: Data provided by Valley & Mountain Consulting in 2009

Proposed Preferred Alternative Upper Truckee River Profiles **Exhibit 2-2**

The bank treatment areas were selected to achieve reachwide stability and minimize erosion, channel avulsion, and other damage to infrastructure while generally allowing for natural channel processes.

Biotechnical bank treatments would be installed on a total of approximately 2,700 feet of existing banks along the 9,240 feet of existing channel that would be retained as active channel. Proposed bank treatments would be focused on vulnerable locations, as well as in the upstream and downstream sections adjoining untreated river reaches. The primary type of bank treatment along the entire 1,700 feet of proposed constructed channel sections would be transplanting salvaged materials combined with other biotechnical techniques. The treatment examples include transplanted sod and shrubs, stacked native sod to stabilize outside bends and native sod or seeded blankets in straighter portions, and woody debris brush boxes. Sod and shrub materials could be obtained from within the footprint of the new channels, salvaged from the bottom of reconnected meanders or from adjacent meadows with native vegetation. These treatments allow for more natural channel migration and processes over time than hard-grade control features.

Where abandoned meanders are to be reconnected, final alignment decisions would prioritize locations where robust, existing woody vegetation along remnant channel banks could be incorporated into proposed bank positions. Throughout the approximately 2,490 feet of reconnected meanders, vegetation in the bottom of the channel would be removed and salvaged for revegetation opportunities elsewhere in the study area. However, existing vegetation on streambanks would be preserved to the maximum extent possible to provide immediate stability and habitat. Generally, the area of vegetation protection would be about half of the total bank length. The proposed constructed channel sections are in areas where vegetation has historically been modified for golf course management. Opportunities to incorporate existing woody vegetation into the bank treatments are limited in these areas, so salvaged material and other biotechnical techniques would be used in these sections.

Transition among existing, reconnected, or constructed channel segments that would be part of the proposed active channel would generally be at riffle crossovers. These areas would include treatments combining both streambed and streambank measures that would be installed to provide stability and to smooth the hydraulic connection between segment types. Streambed treatment measures would likely be armored riffles in the existing channel, and were discussed previously in the “Profile” section. Streambank treatments at the junction of the existing channel to be abandoned and plugged would have compacted soil and either mature vegetation transplants or biotechnical measures such as stacked sod. The results of hydraulic analysis conducted during final design may identify the need for treatments at the transitions that include other combinations, such as the use of rock armor, buried sheet piling, living woody vegetation, and large woody debris structures. Meanders that approach within approximately 15 feet of the sewer line would require additional treatment, such as rock armoring or sheetpile.

Riprap, root wads, and/or metal or concrete materials present in the existing bank treatments would be evaluated on a site-by-site basis during the engineering design phase. Most existing bank treatments located in proposed active channel areas would be removed, although some biotechnical treatments could be retained or repaired as needed to stabilize banks. Where levees in the existing channel are to be removed, recontouring to floodplain elevation would accompany other bank treatments. Materials removed would be salvaged for reuse, disposed of, or buried. Existing bank treatments located in channel areas to be backfilled may be removed or buried, as appropriate.

In some areas, particularly in the forested reach, woody debris is relatively common in the channel, and woody debris supply can be expected to remain relatively high (River Run Consulting 2006). Woody debris jams could be constructed in this reach to help promote streambank stability and improve instream habitat complexity. Small jams configured as flow deflectors along channel margins would likely be most effective. These jams would be carefully configured to avoid increasing overall streambank erosion or affecting the function of other planned bed and bank treatments.

In addition to the specific bank treatments described above, in all near-bank areas that would have construction disturbance, protection of the present bank vegetation would be emphasized. The most limited number of channel access points would be used to avoid bank vegetation, trees would be shielded, and shrubs could be pruned while protecting soil and root structures if avoidance is not possible. In areas where existing streambank vegetation must be removed, the project would salvage, store, and reuse plant materials.

Channel Dimension/Capacity

Under the Preferred Alternative, the channel dimension (width, depth, cross-section area) would be altered, and the channel's capacity to convey flow would be modified in the new constructed sections (reconnected meander sections). In the existing channel sections that would remain part of the active channel, dimensions and capacity would be modified by a combination of implemented direct and expected future indirect changes.

Mussetter Engineering (2000) recommended 600 cubic feet per second (cfs) for bankfull discharge downstream of the study area, based on the 2-year recurrence peak flow. (River Run Consulting [2006:47] concluded this would probably be adjusted to approximately 550 cfs in the project reach, upstream of Angora Creek and other inflows.) ENTRIX estimated the 1.5 year flow to be 450 cfs for the Sunset Reach immediately downstream (ENTRIX 2003). Swanson Hydrology + Geomorphology (2004: III-7) suggested a bankfull discharge within the study area of about 350 cfs, based on field identification of indicators such as vegetation lines and midchannel and point bar surface heights. River Run Consulting (2006:48) emphasized the importance of rain-on-snow events in shaping channel geomorphology and cites field observations during runoff events that support a design flow of 450–550 cfs. Based on these estimates, the proposed channel capacity of constructed portions of the restored channel is estimated at 500–550 cfs (River Run Consulting 2006:48).

For conceptual design, field measurements of water stage and channel dimension under known flows at State Parks' stream gage sites (RS 10600 to RS 1700) were used to develop typical dimensions for a 550-cfs-capacity channel (River Run Consulting 2006:48). At a 550-cfs discharge, this cross section has a top width of about 70–75 feet, a bottom width of about 40–50 feet, and an average depth of about 3 to 3.5 feet. These dimensions provide the conceptual design of the proposed channel geometry at armored riffles or other constructed areas, allowing for variability while keeping continuity. Final channel dimensions for the project would be developed through the design phase, using an iterative approach that incorporates further analysis of channel geometry in functional areas (analog forms), sediment transport data, and hydraulic analyses, along with consideration of other factors.

The proposed 1,700 feet of new constructed sections would be excavated into the existing terrace and floodplain ground surface, with additional grading to adjust for consistent and appropriate bank heights and angles (e.g., outer banks versus point bars) for the stacked sod and/or other revegetation treatments. In all cases, the upper 1 foot of material would generally include salvaged soil, gravel, and vegetation to be reused on bank treatments (described above).

The proposed 2,490 feet of reconnected meanders would require various degrees of excavation and reshaping to meet design elevations and dimensions. Over the decades since they were active channel sections, the abandoned meanders have experienced sediment deposition and vegetation encroachment. Excavation and shaping of the channel bottom and modifications to streambank heights and angles (at least on the inside of bends) would be required as part of the reconnection. The proposed 5,000 feet of modified existing channel would include areas with hard- and soft-grade control structures and areas of bank treatments (described above). To the degree feasible, bed and bank treatments within the existing channel would be designed to reduce channel width and depth, but at a minimum, treatments would prevent channel enlargement. In locations with armored riffles, the final grade would be between 2 and 4 feet higher (positive grade) than the existing channel bed, and final bank treatments would include additional roughness and resistance to help narrow the channel. The restoration concept relies on natural geomorphic processes (e.g., sediment deposition and bar formation, vegetation colonization, woody debris recruitment) in the existing channel to adjust the channel shape and size between treatment areas.

The design assumption is that natural processes of erosion and deposition would establish appropriate channel dimensions over time in areas where the stream is not fully reconstructed (River Run Consulting 2006). While general channel dimensions would be established at armored riffles, in the newly constructed channel and in the reconnected meanders, the intervening reaches would adjust over time in response to local sediment supply, transport, deposition, and erosion. The water surface elevation and channel capacity would be controlled by the profile elevation and cross section of the next downstream riffle crest.

Upper Truckee River Bridges

Under the Preferred Alternative, all five existing golf course bridges would be removed. Removal of existing bridges would include local excavation at the footings to cut existing steel piles 1–2 feet below finish grade. A one-half-inch steel plate would be welded to the newly cut end before reburial. The quantity of material removed would be minimal, and all steel products would be recycled. Bridges with concrete footings would require jack hammering of the concrete to 1–2 feet below finish grade. Exposed reinforcing steel would be cut flush with the concrete surface. Approximately 3 cubic yards of concrete debris would be generated at each footing removal. Existing rock riprap associated with the bridges would also be removed; this material would be salvaged and reused or buried in reaches to be abandoned and filled. The bridge removal sites would be evaluated to determine what degree or type of bed and bank stabilization and revegetation is required. In some bridge removal locations, the site would become part of the inset floodplain, backfilled channel, or other restored surfaces and would be treated as such. In reaches of the existing channel to be incorporated into the final alignment, bed grade elevation would be controlled by restored profile but bank treatments may be needed.

A new bridge would be installed over the Upper Truckee River to accommodate two-way golf cart traffic, service vehicles, and pedestrian access to trails, with a proposed location between RS 6600 and RS 6900. Final location may be modified during final design. The new bridge would span the channel and active floodplain without piers in the channel bed, and total span length would be between 135 and 200 feet to provide flood flow passage. To provide enough room for two-way cart traffic and pedestrian use, either a single 15- to 20-foot-wide deck or two side-by-side 10-foot-wide decks would be installed. The bridge would be designed to pass the 100-year flow, with the bottom of the bridge located approximately 10 feet above the streambed, which would be about 5 feet above the typical water surface (2-year flow).

In the vicinity of the new bridge, an inset floodplain would be excavated into the high streambanks to improve flood flow conveyance and allow for a functional active floodplain area along the main channel. The inset floodplain would be approximately 900 feet long (300–500 feet upstream and downstream of the proposed bridge) and about 50–70 feet wide (20–50 feet in from the channel bank). The depth of excavation into the existing high terrace along the streambanks would range from 4 feet to 8 feet, with a resulting active floodplain surface of about 2 to 3.5 feet above the streambed. Bridge abutments would be along the back edge of the active floodplain, with pilings driven to refusal (below the 100-year-flood scour depth). Conveyance of the 100-year flood would be uninhibited.

The newly constructed bridge would resemble the existing prefabricated steel golf course cart bridges. Decking and railing materials would be similar to those of the existing golf course bridges at holes 6 and 7. Bridge guardrails would conform to the existing course bridge guardrail configuration, and guardrail height would vary with clear span from 3 to 6 feet. An irrigation pipe would be attached to the underside of the bridge deck with pipe clamps. Waterlines would be protected by a steel sleeve one pipe size larger than the irrigation pipe. The pipe would convey water from the existing well and storage ponds east of the river to the proposed golf course areas west of the river.

Active Floodplain and River Overbanking

Under the Preferred Alternative, the active floodplain would be enlarged, providing increased connectivity and frequency of river overbanking through channel restoration. The floodplain along the Upper Truckee River and

the unnamed creek would have improved function, including allowing floodwater to slow down and sediments to settle out, thus improving water quality. The frequency of floodplain inundation along the Upper Truckee River would be increased by reducing confinement that occurs from the existing high streambanks and enlarged channel capacity, particularly downstream of RS 7300. The increased bank length and frequency of overbank flows, direct floodplain topography modification (e.g., inset floodplain excavation and retired/restored golf course areas), and increased elevation of channel bed would combine to increase the active floodplain (5-year) area from 36 acres under the existing condition to 77 acres under the Preferred Alternative, and 23 acres within 100-year floodplain would be restored by removing golf course from these areas.

The conceptual design generally targets restoring connectivity and increasing the length and area of active floodplain adjacent to an appropriately sized channel that would overflow its banks at least once every 1.5 to 2.5 years while still providing flood protection to adjacent private properties. However, the design is not rigidly applying the same channel capacity and bank heights throughout the study area. Because the project spans reaches that would have different natural floodplain relationships, the design concept allows for variability in channel capacity and bank height (River Run Consulting 2006). The stream was likely naturally incised within outwash deposits near the upstream end of the project reaches and had a limited active floodplain in that reach. However, it naturally transitioned downstream to the valley flat meadow reach with a broad active floodplain. Because of the complexity of existing topography, the conceptual design focuses primarily on restoring channel length and profile characteristics rather than on ensuring that channel dimensions match the design (bankfull) discharge throughout.

Because the channel bed profile would be raised with continuity of grade between the upstream and downstream grade controls, the streambank height would be decreased and floodplain connectivity and overbanking frequency would be increased throughout most of the project reach. The 4,190 feet of newly constructed and reconnected historic meanders and some sections of the 5,000 feet of modified existing channel would have a raised bed elevation (at installed grade controls). The 4,240 feet of unmodified existing channel upstream and downstream of the proposed river treatments would still be inset between high-terrace banks and would have limited overbanking under frequent, small-magnitude events (e.g., 2-year to 5-year peak flows). Downstream of the lower-most grade control would continue to be influenced by backwater affects from the U.S. 50 bridge.

Inset Floodplains

The active floodplain would be enlarged by directly excavating a total of about 1.7 acres of inset floodplain from the existing terrace banks. Proposed locations for the inset floodplains are sites near the upstream end of the project reach where the channel is incised in glacial outwash and would normally be more confined than meadow reaches or sites with severe hydraulic confinement and limited opportunity to substantially raise bed elevation. Floodplain excavation would reduce active channel bank height; provide additional conveyance capacity for large flood flows between the high-terrace banks; and directly remove sediment sources in an area of highly unstable, steep banks. The conceptual design assumes that approximately 2 feet of excavation would occur throughout the proposed inset floodplain areas (River Run Consulting 2006). The design width and configuration of the excavated floodplain could be modified based on a number of criteria, including extent of severe bank erosion, the hydraulic characteristics of the final channel and bridge design, and protection of existing vegetation.

Backfilled Channels

The approximately 2,600 feet of the existing channel to be abandoned would be converted into about 4.5 acres of functional floodplain by complete or partial backfilling. Backfilling would create sediment and soil depths and properties suitable for conveying and storing groundwater and soil moisture that supports native vegetation that grows well in wet areas. Partial backfilling would mimic oxbows and abandoned meanders such as those that exist in the study area.

The backfilled channel sections would be stabilized at the upstream and downstream ends with compacted soil plugs revegetated with stacked sod or salvaged vegetation. Plugs would be at least 40–50 feet long, extending across the entire blocked channel width to tie in with a finished ground surface that is equal to or slightly higher (up to +1.0 foot) than the existing adjacent surfaces (River Run Consulting 2006). Vinyl sheet piling would be installed across the former channel within the downstream plug, and the upstream plug may contain a rock core or sheet pile to protect against erosive forces. The plugs at the upstream ends of backfilled channel sections must be designed to force all flows up to the design flow (550 cfs) into the proposed new or reconnected meander. However, a portion of flood flows greater than the design bankfull flow could be allowed into the backfill channels, promoting floodplain function and diversity of natural abandoned meanders. The designated streamflow at which overflow into the backfill channels might occur would be selected during final design, based on hydraulic analysis, desired active channel flows and water elevations, and other factors related to floodplain flow paths and residence time.

The amount of fill placed in the backfilled channel sections would depend on many factors. All of the plugs (approximately 20 plugs totaling about 1,000 feet of length) and other areas vulnerable to erosion would be completely filled to ensure stability of the proposed channel margins. Most other areas would be filled to within 1–3 feet of the surrounding ground surface (approximately 55–75 percent fill). Some areas may not be backfilled as deeply, to allow for additional surface water features and habitat values on the floodplain. The final area and configuration of shallow (partial) backfill would minimize stagnant water suitable for mosquito breeding and maximize groundwater and soil water continuity across the floodplain. Areas with standing water are currently treated by the El Dorado County Vector Control District, and reconfigured and restored areas would also be treated. Numerous oxbows and abandoned meanders currently exist, and these features would mimic the existing habitat. As much as possible, material generated on-site through other construction elements would be used for backfill. However, specified materials would likely need to be imported.

Restored Floodplains

Relocating golf course holes farther from the river would increase the buffer between the golf course and the river and allow restoration of floodplain topography, soils, vegetation, and function. The area selected for removal and relocation of holes was guided by analysis of meander scars on aerial photos, and in the conceptual design, holes are generally relocated outside the historic meander belt. Geomorphic and ecological function would be restored to approximately 97 acres of floodplain/meadow, including 23 acres within the 100-year floodplain where a portion of the golf course would be removed. All existing golf course infrastructure north of the river along Angora Creek in Reach 1 (holes 10, 11, and 12) would be removed, and south of the river, all of holes 6, 17 and 18 and portions of holes 7, 14, 15, and 16 would be removed.

The revegetation treatment of the floodplain would vary depending on the amount of disturbance required to remove golf features, the proximity to the STPUD sewer line, and the species of vegetation present, leading to a range of treatment options that could be applied. In order of decreasing intensity, these options are:

- removing fill, grading, soil rebuilding, and revegetating;
- removing shallow fill and exposing buried native rhizomes or revegetation;
- deep-ripping, amending, and revegetating;
- seeding and irrigating; and
- abandoning turf.

Where ground elevation was raised during construction of the existing golf course (e.g., greens, tee boxes, spoils, and levees), the historic topography would be restored by removing nonnative turf and fill material and/or local grading. The final elevation would match the native predisturbance grade. Minimum required cover for existing sewers would be maintained. In other areas where the naturally diverse and complex topography was smoothed for golf course landscaping, grading would be used to recreate topographic variability similar to natural floodplains. Topsoil would be salvaged and replaced at the restored elevation. Revegetation would use native seed

or plants appropriate to the site, would consist of seeding and plug plantings or application of pregrown sod mats, and would generally be followed by application of mulch (loose or hydraulically applied) or coconut fiber fabric to provide initial erosion protection. At suitable locations, willow plantings (cuttings, stubs, or entire rooted clumps) would be clustered to reestablish willow-meadow complexes. Where willows are desired but preexisting relict turf is present, measures would be applied to create a competitive advantage for willow over the meadow vegetation in which they would be planted.

In areas with only shallow fill that may have buried natural soil and native meadow rhizomes, the turf and fill would be removed, and the surface would be evaluated to see whether rhizomes are viable or if native sod or seeding is required. If needed, the disturbed surface would be seeded with additional desirable species (e.g., *Deschampsia cespitosa*) and mulched or covered with fabric.

Soils would be deep-ripped and amended if needed in areas where the golf course topography is generally appropriate for the restored floodplain but there is no evidence of native species competing with the turf, or the soil conditions are not conducive to the desired vegetation type. Prepared soil areas would be seeded and/or planted with plugs of desired species and mulched or covered with fabric.

Seeding over existing golf course turf may be used in locations where the existing vegetation is desired for erosion protection and/or the soil profile would not require modification to support the desired future vegetation. This approach would be used in areas that show minor, interspersed native species competing with the turf or that would have a higher soil moisture after restoration, which would result in golf turf species being outcompeted with time.

Turf abandonment treatments may be used in locations where existing vegetation has native wet meadow graminoids or another desired vegetation community present and vigorous. Native species such as *Carex nebrascensis* grow up through the turf and readily outcompete golf turf and reestablish wet or mesic meadow habitat with the restored hydrology. During the transition period before native species dominate, existing turf would provide erosion protection.

Areas anticipated to support mesic meadow and dry meadow could be treated with ripping and planting in bands oriented along topographic contours, alternating with parallel bands of seeding and mulching with the abandonment treatment (combination of the above two treatments).

Existing golf turf would be tilled and incorporated into subsurface fill or removed and salvaged for other use and/or disposed of off-site, and any undesired layers of sand or soil would be scraped and disposed of off-site or reused as fill.

These floodplain treatments could be applied to the entire floodplain in one season or could be applied in strips perpendicular to the river over a 2- to 4-year period so that all of the vegetation would not be disturbed simultaneously. The untreated strips would be replaced with native vegetation once the treated strips have good vegetation establishment.

Other Enhancement Efforts

A seasonal drainage in the southwest area of the golf course footprint was previously diverted into a ditch that has since headcut and gullied. That gully would be recontoured and the stream channel rebuilt into a natural configuration. Where this drainage crosses the golf course, a cart path bridge would be required. The quarry wetland pond restoration, as described in the draft EIR/EIS/EIS, is no longer proposed as part of the Preferred Alternative because further evaluation concluded that the area is naturally recovering and establishing properly functioning habitat and would not benefit from the further improvements previously described.

Unnamed Creek

The unnamed creek that flows northward through the golf course between existing holes 1 and 3 and enters the Upper Truckee River at RS 3000 was previously straightened and channelized into a ditch. Under the Preferred Alternative, this creek would be enhanced. The four cart path bridges would not be removed, but the northernmost bridge would be designated for trail use outside the golf course footprint and might be relocated slightly downstream for recreational safety, depending on the final golf course design.

Along the unnamed creek, the setback from golf course landscaping turf would be slightly widened to increase the naturalized landscape. Within this zone, turf would be removed (where needed), and native vegetation would be planted to improve stormwater treatment and increase habitat. As feasible, the low-flow channel of the creek would be modified to add more channel length and increase potential for small, active floodplain areas in the buffer zone. The lower reach of the creek, which is currently piped, would be day-lighted and restored.

Under the Preferred Alternative, the mouth of the unnamed creek would be moved and raised, and its orientation would be adjusted relative to the restored Upper Truckee River alignment. Approximately 300 feet of the unnamed creek would likely need to be replaced with a newly constructed channel to the east that curves to meet the new Upper Truckee River position about 275 feet further downstream than at present. Two or three cobble-boulder step-grade control features and biotechnical bank stabilization treatments would be installed along the approximately 225 feet of new, reoriented channel. Reorienting the creek mouth would reduce erosive forces on the banks of the Upper Truckee River.

Angora Creek

The lower ¾ mile of Angora Creek was restored in 1997 (as described in the draft EIR/EIS/EIS). The restoration incorporated a portion of an abandoned historic Upper Truckee River meander as part of the restored Angora Creek channel. Under the Preferred Alternative, the bed of the Upper Truckee River would be raised, and the historic meander previously occupied by Angora Creek would be reconnected to the restored Upper Truckee River. The mouth of Angora Creek would be relocated approximately 200 feet upstream of the current confluence to the point where the creek currently enters the historic meander. The lower 200 feet of Angora Creek would be restored to an off-channel oxbow feature, and four pedestrian and cart path bridges would be removed.

18-HOLE REGULATION GOLF COURSE RECONFIGURATION

The conceptual 18-hole regulation golf course design for the Preferred Alternative reconfigures Lake Tahoe Golf Course by relocating up to seven entire and two partial golf course holes to the western side of the Upper Truckee River and upgrading drainage for retained areas of the course. Those existing holes identified for relocation are within the historic meander belt and active floodplain of the Upper Truckee River. They would generally be relocated onto higher capability lands farther from the river to minimize use of SEZ lands, avoid sensitive biological and cultural resources known to exist in Washoe Meadows SP, and maintain a buffer from the river and adjacent residential areas (Exhibit 2-3). Where golf course holes would be removed from the river corridor, the riparian/floodplain areas would be restored (as described above).

The reconfigured golf course would have an overall footprint of 155 acres, 64 acres of which would be native vegetation (minimally managed and naturalized landscape), and 91 acres of intensively managed (nonnative vegetation or coverage). The area of golf course in SEZ would be reduced to 96 acres, 34 acres of which would be in the 100-year floodplain. All five existing golf course bridges over the Upper Truckee River would be removed, and one new bridge would be constructed, 850 linear feet of golf course would be adjacent to the river at the replacement bridge to allow for playability; however, as described below golf course design will include safety measures for trail users. The overall plan is conceptual and final design may be modified in order to satisfy parties involved in the final decision making process. These modifications would not substantially increase the intensity or severity of an impact or create a new significant impact.

Golf Course Design Concept

The reconfigured course is proposed to be environmentally sensitive and sustainable design. The golf course would be integrated into the natural landscape using a site-specific design approach with the intent of minimizing land disturbance. The conceptual design minimizes potential golf course impacts on the natural ecosystem while maintaining a high quality golf experience. It also provides an opportunity to create interpretive signs throughout the course, calling out environmental enhancements that would result from the project, as well as various habitats, plant, and animal communities located in the study area. The combination of providing a high quality recreational opportunity, maintaining open space, and preserving visual and functional quality of the landscape are a few of the key design goals. While tree removal would be substantial under this alternative the layout was designed to minimize this effect by placement in relatively open and previously disturbed areas that would have minimal impact on the ecosystem while still allowing an 18-hole regulation golf course. The design would incorporate measures to continue Audubon Sanctuary certification through the Audubon Cooperative Sanctuary Program for Golf Courses with ecologically sound land management and the conservation of natural resources.

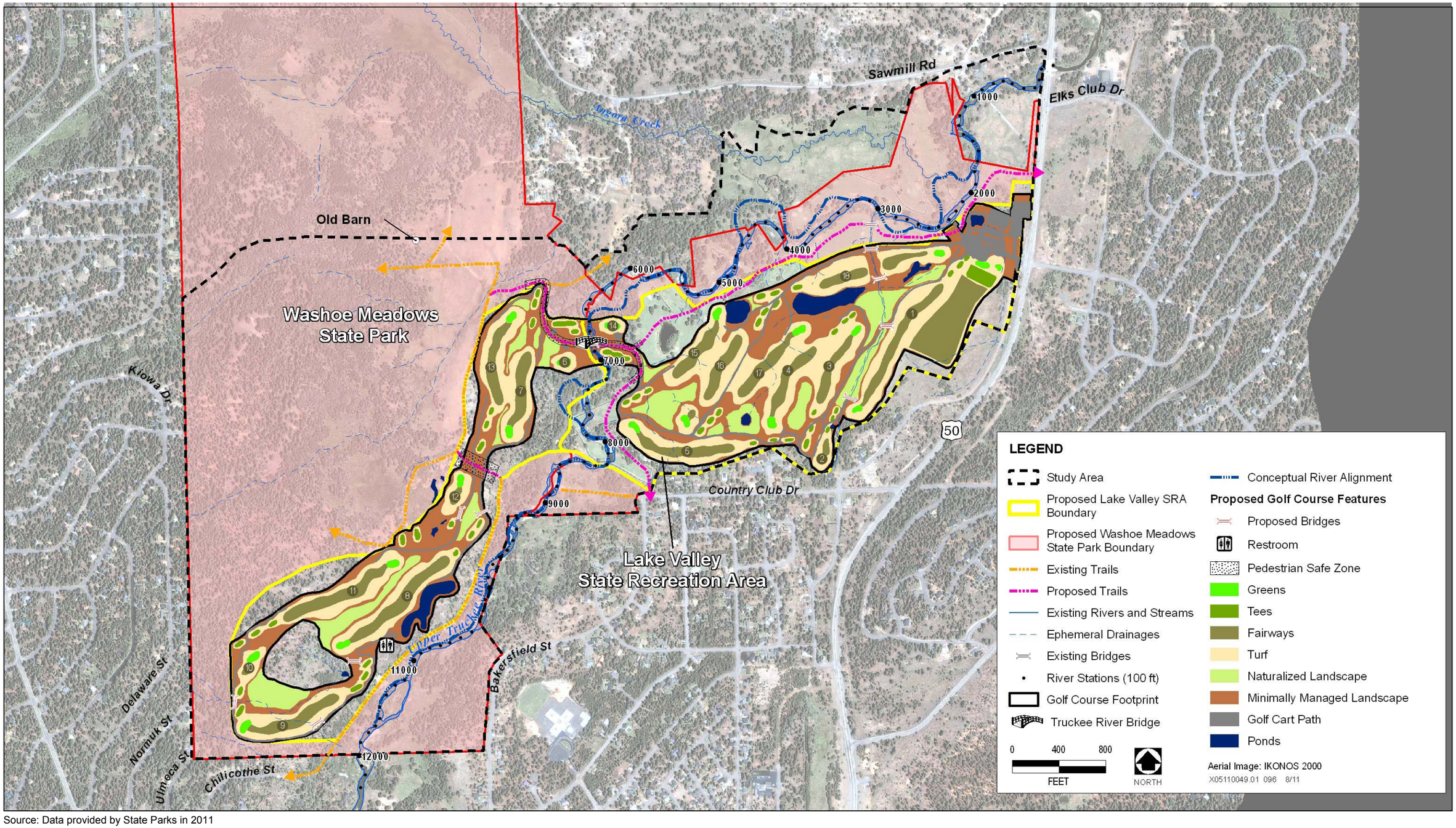
A classic links style golf course is proposed under the Preferred Alternative, where wider turf areas would be placed only in main landing zones so that turf is narrower near tees. All turf areas (intensively managed) would be buffered using native grasses (minimally managed). The existing golf holes would be modified to match this style. Golf course holes remaining on the east side of the river would be reconfigured and upgraded to improve playability, drainage, turf quality, irrigation efficiency, water collection system and to incorporate current BMP technology. As part of this reconfiguration, the unnamed creek crossing the center of the golf course and discharging into the Upper Truckee River also would undergo modification (e.g., added setbacks and buffer areas between turf areas and the creek, and native vegetation treatments in those buffer areas). All areas where existing golf facilities are removed within the current golf course footprint and are no longer used as part of the new course would be restored to a native landscape and removed from the Lake Valley SRA. These areas would receive minimal grading to restore natural topography and drainage. They would then be planted with native vegetation and managed only for natural values as part of Washoe Meadows SP.

Course Layout and Routing

The conceptual routing and layout of the reconfigured golf holes is based on the proposed use for the golf course and existing characteristics of the study area. The exact configuration of the golf course would likely be modified during final design; however size and layout considerations would remain the same. Topography and natural features would be incorporated into the routing to create a natural character unique to the site and integrated into the natural setting. Routing of this conceptual design takes into consideration environmentally sensitive areas, drainage patterns, climatic conditions and other factors that would affect playability, construction, and maintenance of the golf course.

The current Lake Tahoe Golf Course is an 18-hole regulation length, par 71 course with a total walking distance of 6,741 yards. The current course has three sets of tees at 6,742; 6,327; and 5,702 yards. The course rating and slope for the three tees are, respectively, 70.8/126, 68.9/120, and 66.7/109.

The conceptual design for the reconfigured course maintains its status as an 18-hole regulation course designed to be able to host tournament play, with approximately the same slope, rating, length, par, and variety of holes as currently exist. In addition to the natural features of a site, the golf course layout incorporates design features, such as teeing areas, greens complexes, sand and grass bunkers, and water features to define the strategy of each hole and produce the desired visual quality, keeping in mind circulation, speed-of-play, and safety. For areas that lack character or topography, these features would be used in conjunction with golf course routing to create playability, surface drainage, and aesthetics.



Source: Data provided by State Parks in 2011

Proposed Preferred Alternative: Reconfigured 18-Hole Regulation Golf Course

Exhibit 2-3

The reconfigured golf course would incorporate and improve sections of the existing golf course that are distant from the river, construct two new holes that cross the river, seven new holes on the west side of the river, removing golf course from most areas adjacent to the river. All existing cart paths that are not within the footprint of the reconfigured golf course would be removed, and the area would be restored to native topography and vegetation. The asphalt would be disposed of off-site, and the area would be tilled, seeded with native seed, and mulched. New cart paths would be constructed within the reconfigured golf course footprint to serve the new holes. Asphalt cart paths would be approximately 8 to 9 feet wide in areas of one-way traffic, and 12 feet wide in areas of two-way traffic. Exhibit 2-3 shows the new path layout. A section of the new cart path route would also serve as a walking trail on the west side of the river to provide non-golf recreation access across the course and to the new bridge, and connecting to newly constructed trails that tie into the bike path on the east side of the river.

The portion of the course on the west side of the river would be designed so maintained turf areas are surrounded by native vegetation. The intent is to create a course that blends well with existing terrain and natural vegetation. This concept creates more target-style golf, where wider turf areas would be placed only in main landing zones (fairways through greens), so manicured vegetation is narrow near the tees and minimized overall, resulting in tee areas being more like islands in the native landscape. In some cases cart paths would cross through portions of natural landscape between holes. Fairway and rough areas would be minimized to accommodate play with little disturbance of existing natural landscape. A 1.6 acre pond is proposed for irrigation and stormwater treatment in the area of a former oxbow on the terrace. A new 650 square foot restroom facility would be constructed near the new hole 9 on the west side of the river. A connection to the existing power and sewer lines located at Chilicothe Street would be installed. Access to the restroom would be via the cart path described above. If this location is not deemed feasible during final design the restroom facility may be located near the current hole 5 as described in the draft EIR/EIS/EIS under Alternative 4.

Grading west of the river would be minimized using the natural contour to the extent possible. Modifications to the natural contour would only be made where necessary to create playable slopes for golf, positive drainage, and to properly elevate greens and tees. Grading of landforms west of the river would require an estimated 210,000 cubic yards, including topsoil salvage. All material would be used on site. An estimate of approximately 4,800 yards of sand and gravel would be required for tee, green, and bunker construction on the west side of the river, as well as the 32 acres of new sod.

The design for the two holes to cross the river is necessitated to reduce long green-to-tee distances and to keep play moving at an acceptable pace. The existing layout is easy to walk and the proposed course should also remain as easy to walk as possible. The two new par 3 holes across the river would be “target holes” to minimize the golf landscape footprint redesigned to lead up to and away from the river; target holes minimize impacts on the stream zone because they are shorter holes with limited turf. The par 3 holes would require about two acres of turf and would be graded so drainage is toward the surrounding buffer zone and would not return flow directly to river. These par 3 holes would have minimal rough and create an island of turf in the native landscape. The turf area for these holes would be sufficiently wide to contain the majority of golf shots. The perimeter of the turf area for the two new holes playing across the river would be marked as environmentally sensitive areas. This marking would dictate that players not enter the area adjacent to the turf at any time, not even to search for lost balls, thus reducing any impact players may have on the river ecosystem. Only maintenance staff would enter sensitive areas (upon occasion) to retrieve balls. The river holes would also enhance the quality of the playing experience and create an opportunity to bring focus to the interpretation for the river restoration.

Existing golf course holes would be modified to tie in with the proposed new holes and river restoration project. The proposed design would update the portion of the existing golf course to be incorporated to reduce environmental impacts, and natural areas between holes would be expanded. In the proposed design, several holes or portions of holes near the river would be removed and the area restored. Three existing holes would have minor routing adjustments to tie in with the new holes west of the river and reduce excessively long green to tee walks. Six other existing holes and the practice areas would be improved to reflect the character and quality of the new holes. This work would include local grading, new irrigation, drainage cart path improvements, and replacement

of bunker sand. Tees, greens, and portions of fairways that need to be re-configured would be re-sodded, and existing bunkers would be rebuilt as well as spot treatment in problem areas. Areas out of play between holes that currently have managed vegetation would be restored to natural native vegetation. Approximately 100,000 cubic yards of grading would be required with materials balanced on site. About 7,200 cubic yards of sand and gravel would be imported for construction of tees, greens, and bunkers.

Land Management

The footprint of the golf course includes areas managed for golf as well as adjacent or surrounding areas managed for natural resources. (See Table 2-2 for land management descriptions.) In the reconfigured 18-hole golf course conceptual design, the total golf course footprint is increased from 134 to 155 acres; however, it includes more areas managed for natural resource values (natural landscape) as well as increasing less intensively managed (golf landscapes) than the previous footprint. The amount of intensively managed area decreases from 104 acres to 91 acres, which includes reduction in turf from 98 to 84 acres, the amount of minimally managed acreage is 48 acres and areas managed as natural landscape increase to 16 acres in the Preferred Alternative from 7 acres under existing conditions . Some portion of existing intensively managed areas would be modified to develop new out-of-play areas of natural landscape, composed of native vegetation (scrub and grasses) that surround tees and greens, and native vegetation areas would be incorporated into the natural landscape on the western side of the river. All improved or new turf areas would either be covered with sod or seeded. In the case of sod, where existing turf occurs, it would be pulverized and incorporated into the seedbed. Greens would be composed of bentgrass, and fairways, tees, and roughs would be bluegrass or fescue. A fescue blend would border all turf areas to act as a buffer (minimally managed area) between the highly maintained turf areas and the natural landscape. Alternatively only the tees, greens, and rerouted areas would be re-grassed. Under the reconfigured 18-hole regulation golf course conceptual design, riparian habitat would be further enhanced by planting native species between and around holes.

Table 2-2
Land Management Descriptions

Landscape	Area	Native Vegetation	Mow	Irrigate	Fertilize
Natural landscape	Natural area	Yes	No	No	No
Minimally managed golf landscape	Minimally managed vegetation	Yes	No	Occasional	No
Minimally managed golf landscape[1]	Ponds	Yes	No	No	No
Minimally managed golf landscape[2]	River berms	Yes	No	No	No
Intensively managed golf landscape	Tees, greens, fairways	No	Yes	Yes	Yes
Intensively managed golf landscape	Rough	No	Yes	Yes	Rarely
Intensively managed golf landscape	Lawn or landscaped areas	No	Yes	Yes	Rarely
Intensively managed golf landscape	Buildings, parking lots	N/A	No	N/A	N/A

Notes:
[1] Ponds are used for stormwater collection and irrigation supply.
[2] River berms are used to decrease flooding with the existing golf course.
Source: State Parks 2011

Currently, the golf course drains toward the river with little to no buffer. The proposed drainage concept would regrade areas of the golf course and remove golf landscape adjacent to the river. Additionally, existing erosion hazard sites affecting infrastructure would be reduced by bridge removal, as well as by restoration of a more functional river. Drainage would be designed to collect runoff on the course and run it through natural biofilter vegetation buffers to ensure it does not run directly into the river or the unnamed creek. Also, source reduction practices are in place within the management zones around ponds, thus fertilizer and pesticide use is limited near water bodies.

Under the Preferred Alternative, the surface water diversion from the Upper Truckee River would remain a component of the irrigation water supply system. However, use of this diversion would be limited to periods when the exiting well cannot produce a sufficient water supply or is under repair. The diversion infrastructure would be protected with a boulder step grade control structure as part of the river restoration design.

Implementation of improved water conservation strategies would be integral to this alternative. The irrigation and drainage system in the vicinity of the existing holes would be replaced with new, more efficient computerized technology controlling the rate, amount, and timing of irrigation water application in order to minimize soil erosion, runoff, and fertilizer and pesticide movement. The irrigation system would be designed to have an average application rate below the infiltration capacity of the soil so that no surface ponding would occur and maximum efficiency of water use would occur without excess deep percolation. All irrigation would be based on a water balance method which takes into account plant water use as monitored by environmental conditions, soil drainage, and natural rainfall.

Existing irrigation heads are 360-degree spray with 90-degree spray and do not allow for targeting application. These would be removed. Irrigation piping and wire would be left in the ground, and a new piping and control system would be installed. Approximately 11,000 feet of new irrigation pipe would be placed at a depth of about 30 inches, and approximately 45,000 feet of new irrigation pipe would be placed at a depth of about 18 inches. The new irrigation heads would allow for directional control and closer spacing to better target irrigation application and water conservation. The well and pond at the existing hole 9 would continue to be used for irrigation purposes. The stormwater pond west of the existing hole 15 would be regraded and restored as oxbow/wetland floodplain habitat as described in the river and floodplain section above. This feature would be adjacent to but outside the golf course footprint.

The new irrigation system proposed on the west side of the river would include a 1.6-acre, 5-foot deep stormwater and water supply pond adjacent to the proposed hole 9 and approximately 11,000 feet of new irrigation pipe would be placed at a depth of approximately 30 inches, and approximately 45,000 feet of new irrigation pipe would be placed at a depth of approximately 18 inches. Construction of the new pond would be in a high-terrace older oxbow. If this option is not feasible because power could not be brought in, then the pond between current holes 13 and 16 would be enlarged for water supply to this area, with water supplied from the well for all ponds. A pipe attached to the new bridge with a maximum 10 inch diameter would connect to the irrigation system on the east side of the river.

Lawn mowing would continue to occur typically from early morning until mid to late afternoon, and occasionally into the evening. Fertilizer use at the Lake Tahoe Golf Course is minimal and would continue in the same manner. It typically occurs between May and October. The applications start once the soil temperature reaches 55 degrees Fahrenheit and continues through summer (on greens and tees, to a lesser degree on the fairways). Most fertilizers used are slow release. Use of slow-release fertilizer minimizes the amounts of fertilizer free in the soil solution, which could be leached. Fertilizers used on-site that are not considered slow release either are applied as spoon fed on greens only (on approximately 2 acres) or are applied in a manner that approximates a slow-release feeding in that they are applied in such small quantities (per acre) that they do not overwhelm the soil's ability to hold and then release to the plant to match growth rates. Nitrates and soil are both negatively charged, which prevents the soil from holding on to excess nitrate. Whatever nitrate is not used by the plants could be lost to the groundwater; therefore, nitrates applied at the golf course are minimal and only included where they are secondary ingredient of

other products (for example, calcium products). Fertilizer use is focused on fairways, tees, and greens and not within the rough or "minimally managed" areas. Herbicides are used only in spot treatments, and pesticide use is also minimal. Fungicide is used on the putting greens once each fall. Fertilizer, pesticide, and herbicide use is expected to be similar to or less than under existing conditions because of the reduced footprint, decreased water demand for irrigation, and improved irrigation infrastructure included in the Preferred Alternative. No changes in the seasonal application schedule or general types of chemicals needed would occur.

BMPs associated with the facilities are discussed below in Clubhouse, Maintenance, and Parking Facilities section.

Land Capability and Coverage

The TRPA developed a system for allowable coverage based on the Bailey system, which considers vegetation, soils, hydrology and slope to determine a "land capability class" for lands within the Tahoe Basin. These land capability classes have a percentage allowable coverage associated with them. State Parks worked with TRPA staff to verify the land capability within both park units and map the areas of coverage, including those that existed prior to 1972 (pre-Bailey system) that still exist or that have been removed and restored, as well as any coverage that has been added after 1972. The restored pre-1972 areas were banked for later use, after deducting any post 1972 coverage that had been added. Coverage within the Lake Tahoe Golf Course consists of the golf cart paths, the parking lot, unpaved parking area, service roads, and associated club house and maintenance building as well as a small pump house and the golf course bridges. While the golf course landscaping is considered disturbance it is not considered coverage. Coverage within Washoe Meadows SP includes several trails, gravel and dirt service roads, and a barn. Most of the coverage in both units existed prior to acquisition by State Parks. A program has been implemented by State Parks to restore some of the disturbed areas of coverage both in Washoe Meadows SP and Lake Valley SRA and the restored pre-1972 coverage has been banked as mitigation.

Tables 2-3 and 2-4 present the distribution of land coverage per land class for both Washoe Meadows SP and Lake Valley SRA within the study area. Coverage changes are based on existing park boundaries to show relative changes; however, TRPA has evaluated coverage changes as one unit. Allowable coverage for the project is either that allowed by the Bailey system or total pre-1972 verified coverage (minus reductions previously used onsite), whichever is greater. This method is described in Section 20.5 of the Code of Ordinances where the amount of land coverage existing prior to the project in the project area exceeds the base land coverage for the project area prior to 1972 coverage is "grandfathered" in. Section 20.5.C discusses relocation of existing land coverage where relocation from one portion of a SEZ to another portion is allowed due to a net environmental benefit to the SEZ. Net environmental benefit to a SEZ is defined as an improvement in the functioning of the SEZ and includes, but is not limited to: (a) relocation of coverage from a less disturbed area to a more disturbed area or to an area further away from the stream channel; (b) retirement of land coverage in the affected SEZ in the amount of 1.5:1 of the amount of land coverage being relocated within a SEZ; or (c) for projects involving the relocation of more than 1000 square feet of land coverage within a SEZ, a finding, based on a report prepared by a qualified professional, that the relocation will improve the functioning of the SEZ and will not negatively affect the quality of existing habitats. Under the latter criterion, land coverage relocation in the affected SEZ can be at a 1:1 ratio (Gustafson, pers. comm., 2010). Relocation of the coverage farther away from the river that allows for a geomorphic restoration of the SEZ currently occupied by the golf course will improve the function of the SEZ and not negatively affect existing habitat.

An additional 3,312 square feet of pre-1972 coverage is located within the study area adjacent to Lake Valley SRA on Conservancy property.

Table 2-3
Coverage Impacts Summary for Lake Valley State Recreation Area (square feet)

Land Class	Total Coverage Allowable [1]	2010 Verified Existing Coverage	2010 Verified Banked Coverage	Hard Coverage Proposed[2]	Soft Coverage Proposed[2]	Total Proposed Coverage[2]	Excess Coverage[3]
1a		0	–	0	0	0	0
1b	319,631	286,219	33,412	231,131	14,554	245,685	73,946
1c		0	–	0	0	0	0
2		0	–	0	0	0	0
3		0	–	0	0	0	0
4		0	–	0	0	0	0
5	217,086	13,585	5,126	49,287	2,593	51,880	165,206
6	22,559	0	–	0	0	0	22,559
7		0	–	0	0	0	
Total							

Notes:

[1] Total Coverage allowed is the amount allowable under either Bailey system or pre-72 grand-fathered, whichever is greater.

[2] Includes existing coverage

[3] Excess coverage available is either that allowed by LCD or that allowed by grandfathered pre-1972 coverage, whichever is greater, and is coverage credit available for future use.

NR = none required.

NI = no impact.

Source: Data provided by State Parks 2011

Bridges

The five golf course bridges that cross the Upper Truckee River would be removed and replaced with a single bridge crossing that spans the floodplain. The proposed bridge would be much longer (*approximately* 135 to 200 feet) than the existing undersized bridges with approximately 150 linear feet of launchable riprap and 700 feet biotechnical bank treatments, reducing impacts to river erosion and stability. All native areas adjacent to turf would be protected from disturbance and left as thick riparian vegetation signed to prevent entry.

Currently all golf course bridges are closed to non-golf public use due to the safety hazard of non-golfers crossing golf play areas. The new bridge would be designed to accommodate two-way traffic, and dispersed recreation access would be planned to allow safe access from local neighborhoods to the river and meadow trails. The trails and golf holes would be designed so that there would be buffer areas between golf play and the path. Pedestrian paths could pass relatively closely behind a tee, but would have a greater buffer distance behind a hole. Additional information related to trail safety is presented below in the discussion of trails.

The four pedestrian/cart path bridges across Angora Creek would be removed and the four cart path bridges across the unnamed creek would remain, but the northernmost would be outside the golf course footprint and used as part of the new recreation path. The recreation bridge may be relocated further downstream to address recreation safety dependant on final design. (The Sawmill Bike Path bridge outside of the study area, next to U.S. 50 would also remain providing auxiliary access across the river.)

Table 2-4
Coverage Impacts Summary for Lake Valley State Recreation Area (square feet)

Land Class	Total Coverage Allowable [1]	2010 Verified Existing Coverage	2010 Verified Banked Coverage	Hard Coverage Proposed[2]	Soft Coverage Proposed[2]	Total Proposed Coverage[2]	Excess Coverage[3]
1a	0	0	0	0	0	0	0
1b	160,889	130,133	30,757	13,319	97,711	111,030	49,859
1c	315,714	141,582	174,132	16,117	44,882	60,999	254,715
2	0	0	0	0	0	0	0
3	109,025	56,365	19,182	5,633	56,365	61,998	47,027
4	0	0	0	0	0	0	0
5	1,311,590	126,344	106,997	34,412	98,794	133,206	1,178,384
6	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0

Notes:
[1] Total Coverage allowed is the amount allowable under either Bailey system or pre-72 grand-fathered, whichever is greater.
[2] Includes existing coverage
[3] Excess coverage available is either that allowed by LCD or that allowed by grandfathered pre-1972 coverage, whichever is greater, and is coverage credit available for future use.
NR = none required.
NI = no impact.
Source: Data provided by State Parks 2011

Other improvements proposed under the Preferred Alternative include construction of golf cart bridges over four small sub-watershed drainages. These include the drainage from the wetland area formed by seepage from the eastern quarry cutslope, two small (5-foot-wide) ephemeral drainages in the southwest part of the proposed golf course area west of the river, and a seasonal drainage in the northern part of the proposed golf course area. An old ditch that diverts the southwesternmost drainage would be removed and that drainage would be restored. The ditch would be filled and revegetated with native seed, and the water redirected into a vegetated swale. Overall, approximately five new crossings of existing surface water drainages or wetlands with short bridges or boardwalks would be required. They would be approximately 10 to 15 feet long and 8 feet wide.

Bridge particulars are discussed in further detail in the River and Floodplain section above.

Clubhouse, Maintenance, and Parking Facilities

Under the Preferred Alternative, no changes to the clubhouse or maintenance facilities are proposed. There are currently 115 parking spaces in the paved parking lot at the Lake Tahoe Golf Course. Grassy areas on both sides of the golf course entrance are used for additional parking, and under The Preferred Alternative, the northern half of the unpaved parking area would be paved to create up to an additional 89 parking spaces. Lighting associated with the parking would be designed to match existing lighting, which meets TRPA criteria, and use would continue to be for special events at the clubhouse (i.e., banquets). Additional BMPs including an additional oil separator and slotted channel drains would be incorporated into the existing management system to reduce impacts on water quality.

Operations and Maintenance

The Lake Tahoe Golf Course would continue to operate from approximately April 15 to November 1 (as weather allows) from dawn until dusk. Golf Course staff needs would increase by four people to a total of 80 employees due to increased maintenance needs. It would continue to host a variety of golf tournaments and outings each year. There is no anticipated change in tournament play frequency and only a modest fee increase of approximately 5% under this alternative. No other increase in fees are anticipated except those that may arise in the normal course of business in accordance with the golf course's business plan and in coordination with State Park's policy to maintain affordable golf. Permitted winter recreational snowmobile activities would continue to occur from November through March on the driving range, and not be allowed anywhere else on the property, except by golf course or State Parks staff members for patrol purposes. The snowmobile operation would continue to be provided by an outside vendor. Lake Tahoe Golf Course would request a review and continuation of its Audubon Cooperative Sanctuary Program certification.

Normal maintenance or future improvements to golf course infrastructure would be implemented by State Parks (the lease holder) or its contracted concessionaire/representative(s). A reduction in infrastructure maintenance is expected under this alternative due to removal of undersized bridges and river restoration efforts.

TRAILS

Currently all the trails that exist on the west side of the river are casual or volunteer trails. No trails are officially established or designated trails; instead, they have been formed over time through adoption of old roads or routine use, and presumably, trails outside the golf course footprint would continue to be used for the purposes for which they are used today.

Under the Preferred Alternative , a new designated ADA-compliant trail system would be constructed on the east side of the river to tie the informal dispersed recreation trails on the west side of the river across the new bridge and into the bike path. It is the policy of the California Department of Parks and Recreation to provide accessible environments in which all visitors are given the opportunity to understand, appreciate and participate in the State's cultural, historical and natural heritage. Therefore all new construction, renovation or area improvements commencing on State Park property shall be subject to compliance with the requirements of the Americans With Disabilities Act of 1990 (ADA) [Public Law 101-336, commencing at Section 12101 of Title 42, United States Code (and including Titles I, II, and III of that law)], the Rehabilitation Act of 1973, and all related regulations, guidelines, and amendments to both laws, California Government Code Section 4450, et seq., Access to Public Buildings by Physically Handicapped Persons, and Government Code Section 7250, et seq., Facilities for Handicapped Persons, and any other applicable laws. The outcome of all site improvements shall include seamless integration of accessible features to the greatest extent possible.

The recreation trail would share the new bridge with the golf cart path and would then diverge into separate paths on both sides of the river (Exhibit 2-4). There would be two new recreation trails on the east side of the river connecting to the bridge. One would go to the south and tie into the corner of Country Club Drive, while the other would go along the south side of the river to the east and tie into the new Sawmill Bike Path along U.S. 50 near the golf course clubhouse. That trail would cross the unnamed creek on an existing golf course bridge that would no longer be in the reconfigured golf course footprint, but the bridge may be relocated slightly downstream. This trail would also require sections of boardwalk and causeway through the restored floodplain. A new trail would also be constructed around the north end of the western section of the golf course that would allow access across the new bridge. The recreation trail would share the cart path in the central area of the western holes where a gap in the golf course would provide a corridor for other recreation users to pass through to the river and tie into the gravel road which parallels the river. As the draft golf course design indicates, this would occur between holes 7/8 and 12/13 and where the golf course crosses the river at holes 6 and 14. The pedestrian safe zone at the hole 7/8 and 12/13 break is designed to be perpendicular to the golf course to maximize visibility and public safety. A 150-foot buffer is incorporated into the safe zone and would be between a green and a tee box so the public would not

be crossing through the line of play. The buffer would be screened by existing and planted vegetation where visibility is not necessary for safety. Before pedestrians enter into golf course areas along the designated paths, signs would be installed to warn users of potential golfing hazards, and markers would be installed where public trails cross cart paths to direct users. Pedestrians would have the right-of-way to golf carts in all situations and yield signs would be installed along cart paths where public access crossings would occur. Holes 6 and 14, which would parallel the bridge, are designed so that the shot line angles away from the bridge. The bridge area would also be signed and screened as described above. Holes 8, 9, and 13 parallel the STPUD access road. Along this corridor shot lines are angled away from the road and would have a minimum 50- foot buffer between the edge of the turf/rough and the road. This buffer would be screened by existing and planted vegetation. This gravel road is currently, and would continue to be, used by the STPUD as a required maintenance road for its subsurface sewer line in that area. This proposed trail configuration would enable public access and use into and within the area. Interpretive signage would be added in appropriate locations along the new trail system to identify sensitive habitats and restoration improvements.

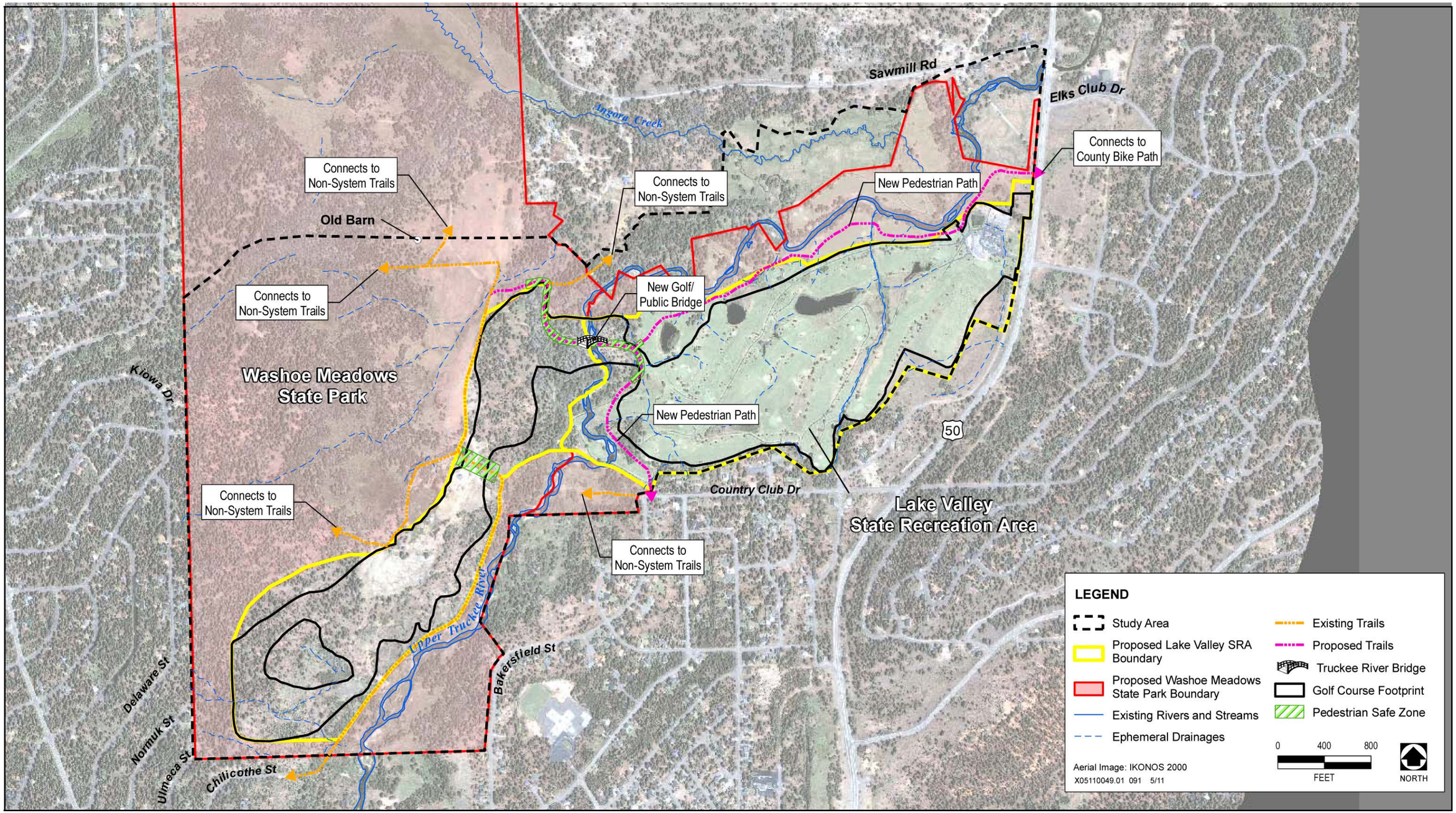
Trails outside the study area were not addressed in the EIR/EIS/EIS.

INTERIM MANAGEMENT PLAN

To manage Washoe Meadows SP in a manner consistent with its purpose and to address existing resources, public access, and use issues of this unit, State Parks would prepare and implement an Interim Management Plan (also referred to as an Immediate Public Use Plan). The plan would address resources protection and management, public access, and trails management to protect the quality of important natural and cultural resources and enhance access to the park unit by the public. Natural and cultural resources and trails management would involve normal maintenance and resources protection measures with the performance criterion of meeting the unit's purpose statement regarding resources. Public access provisions would enhance accessibility for the broader public by the addition of trail improvements, signage, one or more, small parking areas on State Parks land within Washoe Meadows SP (e.g., for 2 or 3 cars). The candidate locations would be where public rights-of-way area abut State Parks land. Such public access point(s) would supplement public access to Washoe Meadows SP provided by the proposed bridge across the river near hole 6. Development within the revised boundaries of Washoe Meadows SP is expected to be minimal because the majority of the remaining park area is within sensitive, low-capability land.

2.2.2 GENERAL PLAN AMENDMENT

Implementing the Preferred Alternative would involve revising the park unit boundaries, essentially "shifting" land between Lake Valley SRA and Washoe Meadows SP, and realigning the boundaries between the two park units to make the boundaries more consistent with the management practices and resource values of the two units. The boundaries of Lake Valley SRA would be adjusted to encompass the reconfigured golf course and the existing STPUD access road. The area evaluated for relocation of the golf course (see Section 2.1.2) was selected to reduce the area of the golf course in the 100-year floodplain and SEZ while avoiding impacts to other sensitive resources. The Washoe Meadows SP boundary would be modified to include much of the restored river corridor (historic meander belt), while the Lake Valley SRA boundary would be modified to include the reconfigured golf course, and the primary STPUD access road, thus making the unit boundaries more consistent with the management practices and resource values of the two units. Currently, the northeastern two-thirds of the river in the study area is bounded by golf facilities and is in the Lake Valley SRA, while the southwestern one-third is in Washoe Meadows SP. The revised park unit boundaries, shown in Exhibits 2-1, 2-3, and Appendix K, would place most of the river zone in Washoe Meadows SP. The only section of river remaining in the Lake Valley SRA would be in the vicinity of the new bridge crossing, allowing room for defining the precise bridge alignment during the final design. The area north of the river near Angora Creek would be shifted from Lake Valley SRA to Washoe Meadows SP. The area to which the reconfigured golf holes would be relocated on the west side of the river would become part of the Lake Valley SRA. Revising the park unit boundaries involves amendment of the Lake Valley SRA General Plan, including appropriate text changes, such as revised management policies for the



Source: California State Parks 2011

Proposed Preferred Alternative: Recreation

Exhibit 2-4

Lake Valley SRA. These changes are presented in Appendix K. The general plan amendment modifies, where necessary, the application of Lake Valley SRA river protection goals and policies to the reconfigured golf course.

The general plan amendment applies to Lake Valley SRA and its new boundaries but does not include plan elements for Washoe Meadows SP. Because no development is anticipated for Washoe Meadows SP, State Parks has not prepared a general plan for this unit. The proposed amendments will be submitted with the completed EIR/EIS/EIS to the State Parks and Recreation Commission for consideration of approval at the conclusion of the environmental review process.

2.2.3 PROJECT CONSTRUCTION

CONSTRUCTION SCHEDULE

The Preferred Alternative construction would be phased over a 3- to 5-year period between May 1 and October 15 (possibly November 1 if weather allows and extension granted) of each year, possibly beginning in 2013. However, construction would not occur on Sundays and may not occur on other designated weekends and holidays. Proposed construction activities scheduled for each year are summarized below (Table 2-3). Access locations, proposed haul routes, and potential storage/staging areas are shown in Exhibit 2-5. Construction hours would be 7:00 a.m. to 7:00 p.m., with hauling restricted to 8:00 a.m. to 6:30 p.m. On occasion, there may be a need for longer work hours to address specific constructability issues that cannot otherwise be accomplished. Such work schedule exceptions would be coordinated with TRPA and El Dorado County, as well as local residents and emergency service providers.

Construction of the Preferred Alternative would commence as soon as possible after completion of construction plans and specifications, project approval, acquisition of permits, securing of funding, and all preconstruction monitoring. Construction activities would be continuous for the multi-year period, with winter closedowns, except for BMP maintenance and monitoring. The construction phasing, equipment, and number of required construction workers for the Preferred Alternative are presented in Table 2-5. However, the final phasing approach may be modified to accommodate needs of State Park, their concessionaire, or the contractor. If possible, Year 1 would focus on construction of the new golf course holes on the western side of the river and the new bridge installation, and the existing golf course would remain open, with minor modifications. Year 2 would involve off-channel work (historic meander modifications and new channel construction). Golf play may be limited to a 9-hole course on the east side of the river to allow for construction access adjacent to the river if the holes on the west side of the river are not adequately vegetated and ready for play. It is anticipated that in Year 2 and 3, most off-channel river restoration work would be completed and vegetation would be allowed to properly establish during this time. Year 3 would include reconfiguring the existing golf course and upgrading irrigation. Year 4 would include removal of old bridges, in-channel work, and connection of historic meanders and new channel sections, if vegetation is established. Pre-wetting of the channels would occur prior to connection with the existing channel sections. The new configuration of the 18-hole regulation golf course would be open to play in Year 4, with possible minor short term modifications to allow for construction access to the river.

Preliminary Quantities

Preliminary quantities of material to be excavated and the cut-and-fill balance for the Preferred Alternative are summarized in Table 2-6. Estimated quantities related to the river restoration are based on the existing and proposed channel dimensions and lengths. At this conceptual stage of design, no adjustments have been made for density or composition of existing materials or compaction requirements of backfill areas. The 18-hole reconfigured golf course design contemplates a minimalist approach to the grading scheme for construction. Only the necessary amount of cut and fill to ensure playability would be undertaken during golf course renovation and reconstruction, and it is expected that all cut and fill would be balanced on-site.

Table 2-5
Proposed Preferred Alternative Construction Phasing, Equipment, and Workers

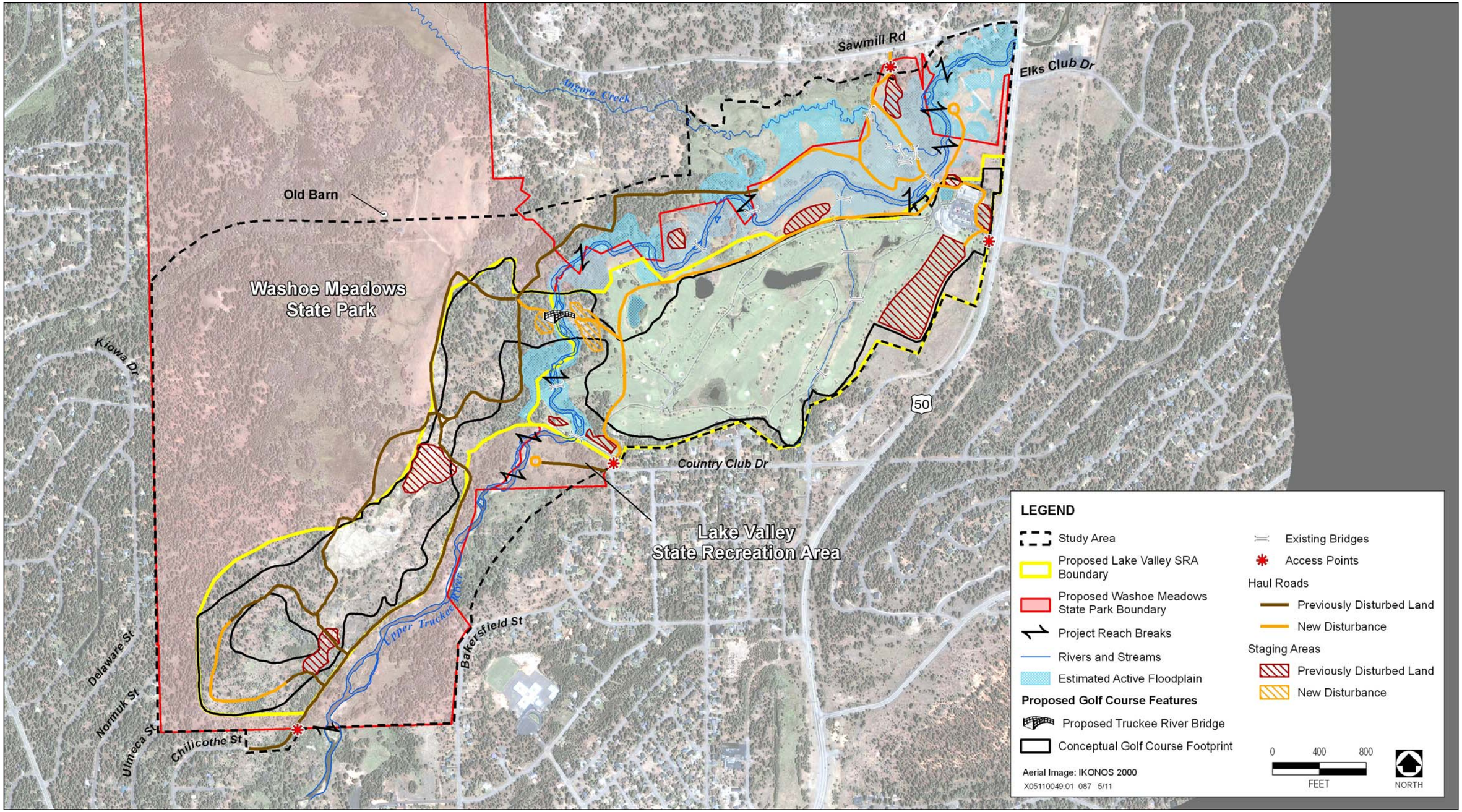
Activity	Duration	Equipment and Workers
Year 1 – New Bridge and Construction of Back 9 (West Side) Golf Course. Modified 18-Hole Course or 9-Hole Course Is Open.		
Mobilization for west side new golf course; Construction of access routes and storage areas; equipment refueling areas, and construction equipment wash area; install temporary BMPs, tree removal and vegetation salvage. Set up temporary or shortened golf holes to allow for safe play	May 15–30	2 equipment transport trucks (1 week), 2 dump trucks, 2 dozers (approx Cat D6), 2 excavators (approx Cat 330), 2 loaders; 2 water trucks, forklift, 1 one-ton pickup truck, 3 chain saws, 1 tub grinder, 1 feller buncher, 1 skidder, 1 log loader, 2 logging trucks workers: 12
Construct west side (back 9) golf course including irrigation, drainage, cart paths, sod or seed, restroom, utility connection, sewerline protection, pond, and permanent BMPs. install 5 foot bridges over ephemeral drainages. Install new bridge over Upper Truckee River.	June 1–September 30	2 excavators (approx. 325 and 330), 2 ten or twenty yard dump trucks , 2 dozers, 2 graders, 2 water trucks, 2 one-ton pickup trucks, 1 scraper, road grader, roller, backhoe, l (approx Cat 420E), 2 loaders, 1 forklift (approx Cat TL642), 1 tractor w/box blade & drag mat, 2 trenchers, 2 cranes (2 weeks), 1 pile driver (2 weeks) workers: 20
Install temporary irrigation and winterization measures. Demobilization – removal of equipment from the 100-year floodplain.	October 1–15	1 dozer (approx Cat D6), 1 excavator (approx Cat 330), 1 loader, 1 water truck, 1 one-ton pickup truck, 1 dump truck, 1 tub grinder, 1 hydroseeder, 1 strawmulcher, 2 transport trucks (1 week) workers: 12
Year 2 – Off-Channel Construction and Removal of Golf Course Adjacent to River. Nine Holes of Course Possibly Closed or Possibly Open Newly Constructed Holes to Allow for 18-Hole Course.		
Mobilization for off-channel work. Install temporary BMPs and additional vegetation salvage. Set up eastern staging area.	May 15–30	2 equipment transport trucks (1 week), 2 dump trucks, 2 dozers (approx Cat D6), 2 excavators (approx Cat 330), 2 loaders; 2 water trucks, forklift, 1 one-ton pickup truck, 3 chain saws, 1 tub grinder, 1 feller buncher, 1 skidder, 1 log loader, 2 logging trucks workers: 12
Off-channel work- modify historic meanders and construct new channels including vegetation and bank treatments of those sections. Leave small plugs of existing soil and vegetation where future connection is to be made.	June 1–September 30	2 excavators (325 and 330), 2 ten or twenty yard dump trucks, 1dozer, 2 loaders, 1 water truck, 1 back hoe, 2 one-ton pickup trucks workers: 12
Install temporary irrigation and winterization measures. Demobilization – removal of equipment from the 100-year floodplain.	October 1–15	1 dozer (approx Cat D6), 1 excavator (approx Cat 330), 1 loader, 1 water truck, 1 one-ton pickup truck, 1 dump truck, 1 tub grinder, 1 hydroseeder, 1 strawmulcher, 2 transport trucks (1 week) workers: 10
Year 3 – Off-Channel Monitoring and Construction of Front 9 (East Side) Golf Course. Back 9 Holes Are Open, and Existing Holes to Be Upgraded Are Either Closed or Partially Closed with Temporary Holes Available to Allow for 18-Hole Course.		
Mobilization for modification of eastside golf course. Install temporary BMPs and additional vegetation salvage.	May 15–30	2 equipment transport trucks (1 week), 1 dump truck, 1 dozer (approx Cat D6), 1 excavator (approx Cat 330), 1 loader, 1 water truck, 1 forklift, 1 one-ton pickup truck, 3 chain saws, 1 tub grinder workers: 12
Off-channel work continued and vegetation monitoring. Pre-wet the new (and still isolated) channel segments, using partial diversion of the Upper Truckee River. This step would not disturb the existing channel.	May 15–October 15	2 truck or trailer mounted water pumps, 2 water trucks, 1 one-ton pickup truck workers: 6

Table 2-5
Proposed Preferred Alternative Construction Phasing, Equipment, and Workers

Activity	Duration	Equipment and Workers
Upgrade existing east side golf course and re move section of golf course in floodplain, including removal of existing cart paths, pulverizing or removal of sod, tilling in existing sand. Then localized grading to improve unnamed creek, golf course drainage and raise tees, installation of new irrigation, cart paths, sod or seed, and permanent BMPs.	June 1–September 30	2 excavators (325 or 330), 2 ten or twenty yard dump trucks, 2 dozers, 2 loaders, 1 water truck, 1 back hoe, 1 grader, 1 tractor w/box blade & drag mat, 1 trencher, 2 one-ton pickup truck, 1 forklift, 1 roller workers: 24
Install temporary irrigation and winterization measures. Demobilization – removal of equipment from the 100-year floodplain.	October 1–15	1 dozer (approx Cat D6), 1 excavator (approx Cat 330), 1 loader, 1 water truck, 1 one-ton pickup truck, 1 tub grinder, 1 hydroseeder, strawmulcher, and 2 equipment transport trucks (1 week) workers: 10
Year 4 – In-Channel Work, Removal of Existing Bridges, and Connection of Off-Channel Sections. Reconfigured 18-Hole Golf Course Is Open but May Require Temporary Holes to Avoid Conflict with River Construction.		
Mobilization for in- channel construction activities. BMP and any additional access.	May 15–30	2 equipment transport trucks (1 week), 1 dump truck, 1 dozer (approx Cat D6), 1 excavator (approx Cat 330), 1 loaders, 1 water truck, 1 forklift, 1 one-ton pickup truck, 1 chain saws, 1 tub grinder workers: 10
Continue off-channel work. revegetation maintenance and monitoring. Pre-wet new (and still isolated) channel segments, using partial diversion of the Upper Truckee River. Use this water to flush constructed segments and pump and spray turbid water onto floodplain to infiltrate and water vegetation treatments. This step would not disturb the existing channel.	May 1–October 15	2 truck or trailer mounted water pumps, 1 water truck, 1 one-ton pickup truck workers: 4
Install biotechnical/bank stabilization treatments, woody debris, segment transitions, and armored riffles or gravel in existing channel sections. Reconnect off-channel sections. Excavate and vegetate the inset floodplain. Unnamed creek enhancement and construction of new alignment of the mouth of the unnamed creek with bed-elevation adjustment. Reconfigure lower reach of Angora Creek to adjust for the new confluence with the proposed river channel and its finished bed elevation. Remove existing five bridges on the Upper Truckee River and four bridges across Angora Creek. Floodplain modifications including remove levees and restore floodplain outside of proposed golf course layout. Modify former stormwater pond to create wetland/oxbow feature. Transport material from stockpile storage (and/or import as needed) and backfill to desired level the abandoned sections of the existing channel, including placement/construction of subsoil and addition of soil treatments as needed for groundwater and soil moisture benefits. Apply seed or vegetation transplants and mulch.	June 1–September 30	2 excavators (325 or 330), 3 tenor twenty yard dump trucks, 2 dozers, 2 loaders, 1 water truck, 2 one-ton pickup trucks, 1 backhoe, 1 crane (1 month) 1 roller, 2 truck mounted pumps, hydroseeder (1 month) workers:16
Construct the modified recreation access trail west of the river to tie into the bridge and construct new trail to tie into Country Club Drive corner. Construct the recreation access trail and boardwalk east of the river to tie into the bridge and bike path. Pave parking lot and install permanent BMPs.	September 1–30	1 loader, 1 excavator, 2 dump trucks , 1 water truck, 1 one-ton pickup truck, small roller & backhoe, paving equipment (asphalt paver, roller, asphalt truck and screed) (1 month) workers: 10

Table 2-5 Proposed Preferred Alternative Construction Phasing, Equipment, and Workers		
Activity	Duration	Equipment and Workers
Install temporary irrigation and winterization measures Remove the temporary disturbances of all access points and staging and storage areas, which includes revegetation activities where needed. Formally demobilize from the site.	October 1–15	1 dozer (approx Cat D6), 1 excavator (approx Cat 330), 1 loader; 1 water truck, 1 one-ton pickup truck, 1 tub grinder, 1 hydroseeder, 1 strawmulcher, 1 ten or twenty yard dump truck, 2 equipment transport trucks (1 week) workers: 12
Year 5 – Work Not Completed In Previous Years Will Be Completed This Year.		
Construction activities would only occur in Year 5 if the condition of revegetation in new channel segments, reconnected meanders, and restored floodplain was not adequate to allow for completion in Year 4. If channel segments were not able to be reconnected in Year 4, those elements would be delayed until Year 5. Year5 activities would commence with mobilization activities and would include the same tasks as listed under Year 4.		
Note: Final phasing approach may be modified to accommodate needs of State Park, their concessionaire, or the contractor as needed.		

Table 2-6 Preliminary Quantities (Cubic Yards) for the Proposed Preferred Alternative		
Treatment Area/Activity	Approximate Cut Volume	Approximate Fill Requirement
New constructed channel	11,000	0
Reconnected historic meanders	8,300	0
Modified existing channel	0	1,000
Boulder steps	4,700	6,200
Armored riffles	8,300	16,500
Other channel bed features	0	0
Existing bank treatments	1,400	0
Proposed bank treatments	2,400	2,400
Inset floodplains	10,800	0
Backfilled channels (assume partial to complete)	0	43,000–58,000
Floodplain fill removal	500	0
Modified unnamed creek	160	90
USGA-approved sand and base	0	7,200
Asphalt	130	180
Baserock	300	430
Sod	7,400	11,200–22,600
Concrete	16	16
Trails	0	9,400
Bridges	5 bridges	1 bridge
Total	**62,790**	**92,000–112,700**
Calculations are estimates based on conceptual design and would be modified, as appropriate, during final design. Source: Data prepared by AECOM and Valley & Mountain Consulting 2008.		



Source: Data provided by State Parks in 2011

Proposed Preferred Alternative: Staging and Access Map

Exhibit 2-5

Several particular river treatments (e.g., boulder steps, armored riffles, rock armored bank, and portions of channel gravel treatments) require specific weight and sized material. For the purposes of traffic evaluations, these materials are not assumed to be available in the on-site excavated materials, but would be brought in from off-site sources. It is possible that some reusable materials would be salvaged on-site, reducing the eventual need for imported material. The USGA-approved sand, and road base or asphalt for new golf cart paths must meet specifications and would be imported. Conversely, existing bank treatments, bridge footings/abutments, and some of the golf course hardscape and sod to be removed may require off-site disposal. Five bridges would be hauled off on five separate flat bed trucks and four bridges would be reused over ephemeral drainages on the west side of the river.

Access, Staging, and Storage

Proposed access points, temporary routes, and staging and storage areas for the proposed Preferred Alternative are illustrated in Exhibit 2-4.

All restoration and golf course reconfiguration construction activities on the southeast side of the river would be accessed through the existing golf course. Street access points could include the golf course entrance off U.S. 50 and the entry off Country Club Drive. Restoration areas north of the river in the downstream half of the study area would be accessed through the existing golf course. Street access points could include the golf course entrance off U.S. 50 or a temporary access off Sawmill Road across public property. Restoration activities in the upstream half of the river and golf course construction on the west side of the river would be accessed through either the Sawmill Road entrance near hole 10, sewer maintenance easements, existing roads and trails in Washoe Meadows SP, and/or the new bridge. Street access to the study area would be provided via Chilicothe Street, Country Club Drive, and the Sawmill Road entrance near the existing hole 10.

Most of the construction area would be accessed through sites already disturbed by golf course grading, sewer line maintenance routes, or other existing trails, cart paths, and roads. Specialized road construction techniques to protect meadows would not generally be required because the existing infrastructure is in place. However, where access roads must cross soft or wet areas or native meadow vegetation, stabilization to protect soils and vegetation and prevent water quality impacts would be required. Where access roads must cross golf course landscaping or infrastructure that would remain in use following project implementation, measures to protect soils, vegetation, and infrastructure would be required.

Temporary access roads would likely be constructed of gravel with road base laid over a temporary fabric barrier. Following construction, roads would be removed and the area restored to preconstruction conditions. Areas would be revegetated or stabilized where needed after use of the roads was completed. Compaction under access roads may occur; therefore, restoration of their footprint areas may require ripping and active revegetation.

Any partial street closures and traffic control would be coordinated with the California Department of Transportation (Caltrans) and El Dorado County Public Works Department, as appropriate. Local residents would be informed of potential traffic controls, closures, or detours at least 48 hours in advance. Adequate emergency access would be provided at all times, and local emergency service providers would be notified of any potential road closures or detours at least 48 hours in advance. Signage on the Sawmill Road Bike Path would be required near the construction entrances on Sawmill Road and north of the golf course entry on U.S. 50.

Construction staging sites would be established in the study area, on previously disturbed land, land slated to be disturbed as part of relocated golf course, and/or high capability land, and would be secured to prevent unauthorized access. Temporary erosion control fencing and (if needed) an approved refueling station would be incorporated into staging areas where appropriate.

Soil would be removed from abandoned meanders, areas of newly constructed channels, reconfigured golf course topography, excavated floodplains, and/or other miscellaneous areas. This material would be stockpiled for placement in the backfilled existing channel. Material would be stockpiled in one of the locations designated in

Exhibit 2-4 for up to three years while soil stabilizes and vegetation along the proposed channel becomes established. At project completion, the stockpile area would be used to backfill sections of the existing channel to be abandoned or contoured to the natural topography of the surrounding area (or integrated into the new golf course landscaping) and revegetated.

Vegetation would also be removed from excavated new channels, reconnected historic meanders, modified existing channel bed and banks, areas of the existing golf course to be reconfigured or retired, areas of the new golf course, and other miscellaneous locations. Plant materials could range widely and would include willows and native sod desired for reuse in the restored areas. Salvageable plant material would be stockpiled until areas are prepared for replanting. Vegetation stockpiling locations would likely be near the river channel, in historic meanders, or in golf course ponds. A temporary plant propagation area where plants would be grown from salvaged materials and/or seed for use on the project may also be designated. Because both native and nonnative materials may be reused in the reconfigured and new golf course areas, no excess plant materials would be expected under the Preferred Alternative.

Bridge Installation

Bridge materials would be staged on the east bank near the installation site, and a smaller staging area on the west bank; both areas would become part of the golf course fairway. Transport of bridge sections from an unloading zone near Country Club Drive to construction staging areas for the bridge would be provided by 40-foot flatbed trailers on a temporary construction road or existing dirt roads. Brushing and grading of a 16-foot road section may be necessary in some locations to allow access. Detours on Country Club Drive would be required to allow a 20-ton tracked crane to stack bridge sections in the staging area.

A pile driver would need to access both sides of the river at 40- by 50-foot construction staging areas. Lengths of 10-inch steel piles would be hammered to a depth of up to 25 feet. Pile clusters would be spaced at approximately 5 feet, three piles for 10-foot widths and five piles for 20-foot widths. Bridge deck supports would be 1-inch-thick steel plates welded to the top of the pile clusters. After the pile foundation is completed, 20-ton cranes would be stationed on both sides of the river to set and connect bridge sections. Bridge installation should be completed within a period of 1–2 weeks.

Four or five existing bridges removed from the existing golf course would be re-used on west side of river over ephemeral drainages.

Restroom and Parking Area Construction

A new 650-square foot restroom facility would be constructed near the new hole 9 on the west side of the river to accommodate both men’s and women’s restrooms. A connection to the existing power and sewer lines located at Chilicothe Street would be installed. If this site is found to be infeasible during final design the restroom may be relocated near the existing hole 5 as described under Alternative 4 in the draft EIR/EIS/EIS.

The unpaved parking area to the north of the golf course entrance would be paved to create up to an additional 89 parking spaces. Additional BMPs including a separate oil separator and slotted channel drains would be incorporated to existing management system.

3 MASTER RESPONSES

The responses presented in this chapter address common environmental issues raised in multiple comments on the August 2010 draft environmental impact report/environmental impact statement/environmental impact statement (EIR/EIS/EIS) for the Upper Truckee River Restoration and Golf Course Reconfiguration 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, use of master responses also streamlines the final EIR/EIS/EIS. Chapter 4 of this document presents the comment letters 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 and are presented in the following sections of this chapter:

- Section 3.2, "Land Use"
- Section 3.3, "Biological Resources"
- Section 3.4, "Hydrology, Flooding, Geomorphology, and Water Quality"
- Section 3.5, "Recreation"
- Section 3.6, "Cultural Resources"
- Section 3.7, "Economics"

3.2 LAND USE

3.2.1 RESOURCE VALUES OF LANDS BEING EXCHANGED

This master response addresses comments related to the resource values of the lands proposed for exchange between Lake Valley State Recreation Area (SRA) and Washoe Meadows State Park (SP). Comments specifically addressed the existing uses and resource values within the lands to be exchanged. Commenters state that the resource values of lands proposed to be exchanged between the two units under Alternative 2 would not be equal. This section responds to all or part of the following comments: AOB4-1, AOB4-3, AOB4-5, AOB4-6, AOB8-8, AOB8-13, AOB9-2, AOB12-1, AOB13-1, AOB14-1, AOB24-10, AOB30-4, AOB31-2 through AOB31-4, AOB31-17, I6-1, I6-2, I18-1, I50-1, I54-4, I64-22, I160-1, I179-1, I179-10, I186-1, I192-1, I192-4, I192-5, I207-3, I216-1, I217-1, PM1-14, PM2-35.

BACKGROUND

As described in the 1984 litigation settlement, the area later designated as Washoe Meadows SP and Lake Valley SRA was slated for development of houses, condominiums, and another golf course. The area encompassed the Upper Truckee River and floodplain, Angora Creek and associated meadows, a fen and surrounding wetland area, as well as other areas of mesic and dry meadow, shrubland, and forest. The area was already altered by river channel straightening and incision, the building of the golf course on the former floodplain between 1958 and 1962, installation of sewer lines and associated roads in the 1960s, gravel mining of two large quarry pits and several smaller ones and construction of associated haul roads, logging and construction of associated roads, a drag strip, a dairy farm, and development of neighborhoods surrounding the property and dissecting Washoe Meadows SP from the Federally owned forestlands. In spite of these impacts, the property was purchased by the Wildlife Conservation Board and transferred to California Department of Parks and Recreation (State Parks) in 1985 (DGS 1986).

Although the golf course was located in former meadows and floodplain directly adjacent to the Upper Truckee River, the existing golf course was an important public recreation facility and the operation was continued as a concession. The area containing the golf course was designated as Lake Valley SRA. The Lake Valley SRA boundary was not delineated based on any scientific or environmental basis; it was intended only to contain the existing footprint of the golf course.

The golf course was built on both sides of the Upper Truckee River in an area where the river valley widened and a large meadow formed along the adjacent lowlands. It includes five undersized bridges and occupies these former floodplain and meadow areas. The lower reach of Angora Creek also flows through the golf course, above the confluence with the Upper Truckee River. The river and meadow habitats have been severely degraded both by historic disturbance and by modern development. A general plan was prepared in 1988 to allow for continued operation of the existing golf course as a concession and to provide guidelines for managing the area, including restoring the Upper Truckee River.

The rest of the property acquired through the settlement was designated as Washoe Meadows SP. The area includes more common habitat areas of upland forest, shrubland, and dry grassy meadows but also less common vegetation/habitat types, such as wet meadow, a fen, and riparian areas. The resource values were described in previous studies, such as the *Lake Country Estates Project Resource Summary* (State Parks 1987), the *Washoe Meadows State Park Resource Inventory* (State Parks 1990), and numerous studies used to define the study area and assist with evaluation in the draft EIR/EIS/EIS. Reaches of the Upper Truckee River and Angora Creek flow through Washoe Meadows SP, and the State Park has areas of wet, mesic, and dry meadow; fen; and forest (Exhibit 3.5-1 in Chapter 5, Revisions to the Draft EIR/EIS/EIS). The areas along Angora Creek and the Upper Truckee River were cited as sensitive resources during the acquisition of the property and were identified as priorities for restoration.

Geomorphic analyses identified the opportunity for restoration and the area needed for restoration of the river and floodplain. Numerous studies were conducted to determine the presence/status of sensitive natural and cultural resources in the two units to determine the EIR/EIS/EIS study area and identify considerations regarding where the golf course could be located. (See Section 2.2, "Alternatives Development," of the draft EIR/EIS/EIS for additional discussion.) State Parks conducted surveys for northern goshawk, California spotted owl, small mammals, willow flycatcher, migratory songbirds, and bank swallow and also conducted an owl and waterfowl inventory and vegetation mapping. The land capability for the area was verified by the Tahoe Regional Planning Agency (TRPA) (TRPA file number LCAP2008-006). Archaeological studies were conducted for the entire park, and all potentially significant sites were further evaluated, with State Historic Preservation Officer (SHPO) concurrence (Appendix L). Avoiding potential impacts to the historic Celio barn site (associated with the previous dairy) was also considered during planning. This area is located outside of the active construction areas proposed under all alternatives.

Past resource inventories, current studies, and mapping of stream environment zones (SEZs), historic meander patterns, and fens were evaluated to further define the sensitivity of various areas, guiding decisions regarding where portions of the existing golf course could remain and which areas were most suited for relocation (Exhibit 2-1 in the draft EIR/EIS/EIS). Consideration of the areas where the golf course could be sited avoided the wet meadow areas, spring, and fen. Also, the golf course facilities were removed from most areas directly adjacent to the Upper Truckee River and Angora Creek. The area for relocation focused on use of less sensitive lands more distant from the river. The following additional factors also were considered:

- minimize SEZ area,
- minimize connectivity and proximity to river,
- minimize area in 100-year floodplain,
- avoid impacts to sensitive habitats,
- avoid impacts to archaeological sites,
- accommodate dispersed recreation access,
- maintain connectivity between golf areas, and
- do not increase the area of golf course turf.

The final layout may be shifted within the proposed SRA boundary if necessary during the final design; however, golf course acreage would not exceed that proposed in the draft EIR/EIS/EIS and presented again in Chapter 2, "Project Description," of this final EIR/EIS/EIS. These potential changes were considered during analysis of impacts and identification of mitigation measures in the draft EIR/EIS/EIS.

State Parks also considered opportunities for dispersed recreation within the park area and connectivity to regional trails and bike paths, as described in Section 3.8, "Recreation," of the draft EIR/EIS/EIS and Master Response Section 3.5, "Recreation," in this document. These resource and recreation considerations led to the proposed configuration of the golf course footprint for the proposed Preferred Alternative.

Value of Riparian Areas (Including SEZ, Wetlands, and Wet Meadows)

> SEZ consists of a stream and its drainage, as well as marshes and meadows. Their preservation and restoration is essential to the health of the lake, because they provide natural treatment and conveyance of runoff, which they can reduce by as much as 70% to 90%. SEZs also provide many other benefits. While they comprise only 5% of the land area within the Tahoe Basin, they are key habitat for wildlife, enhance the scenic values of the basin, and provide dispersed recreation opportunities for hikers (California Tahoe Conservancy 2011).
>
> Restoring the watershed and habitat of the Lake Tahoe Basin is critical to the health of the entire ecosystem. Given that 75% of marshes and 50%of meadows in the Tahoe Basin have been altered because of development, extensive restoration is necessary to regain naturally functioning wetlands and soils. Preserving and restoring the Upper Truckee River and wetland continues to be an important priority for the EIP. The river delivers more than 30% of the total water inflow to Lake Tahoe and is the single largest source of sediment flowing into the Lake (TRPA 2007:35–36).

Many projects are addressing the restoration needs of the Upper Truckee River watershed. Stream restoration projects help to increase water table elevations and remove sediment and other suspended particles by slowing the velocity of moving water, decreasing peak flows, and allowing the sediment to settle. Thus, the water quality of the lake can be protected and improved by restoring the natural functions of the rivers and streams in Lake Tahoe's watershed. The following wildlife habitat values of SEZs are also widely acknowledged:

- Raptors such as eagles, hawks, and falcons use meadows and wetlands to hunt or forage for prey. Meadows in the basin provide important wintering grounds for resident and migrant bald eagles.
- Riparian areas provide important migration corridors for large mammals, such as black bear, coyote, foxes, and mule deer.
- Wetlands, marshes, meadows, and riparian areas provide nesting habitat for raptors such as northern harrier and horned owl; waterfowl such as great blue heron, merganser, mallard, and ring-necked duck; and songbirds such as willow flycatcher, yellow-headed blackbird, evening grosbeak, and yellow warbler.
- River and stream channel restoration provides greater habitat complexity for native and nonnative game fisheries. Fish rely on channel features such as pools, riffles, instream wood and logs, and undercut banks for food and cover from predators.

Moving the golf course away from the river and decreasing the extent of golf course in SEZ is a critical component to project improvements; however, supporting recreation opportunities is also a goal of the project. Therefore, the project has been designed to balance these goals and thereby meet the mission of State Parks (described further below under Section 3.5, "Recreation"). Furthermore, the Lake Tahoe Golf Course provides affordable golfing opportunities that support tourism and jobs in the local economy and an important revenue source to State Parks.

Boundary Change Areas

Implementation of the proposed Preferred Alternative would require an amendment to the Lake Valley SRA General Plan to modify the boundary of the SRA. The action would also amend the boundary of Washoe Meadows SP. This boundary change would allow a portion of the existing golf course to be relocated from the less common and more sensitive SEZ, wetland, meadow and riparian lands adjacent to the river to generally more common and less sensitive, previously disturbed, higher capability lands more distant from the river. It would also remove golf course infrastructure from both sides of the lower reach of Angora Creek, allowing a large area to be restored to meadow. The restored area along the river would be transferred from Lake Valley SRA to Washoe Meadows SP, and the relocated golf area would be transferred from Washoe Meadows SP to Lake Valley SRA. The area to be transferred from Washoe Meadows SP consist of much more common vegetation and habitat types of the Tahoe Basin, and much of it has been previously disturbed. The impact on this common vegetation type is less than significant, as discussed further in Master Response Section 3.3, "Biological Resources," and below. The area in Washoe Meadows SP that would become golf course and consequently part of Lake Valley SRA consists of mainly areas of lodgepole pine and shrubs, dry meadow, and Jeffrey pine.

Implementation of the proposed Preferred Alternative includes relocation of the golf course holes away from the river, which would allow for restoration of critical habitat areas, such as SEZ and riparian habitat areas, whose value to both wildlife and water quality is well recognized. The area in Lake Valley SRA would be restored from primarily golf course turf (perennial nonnative grass) to riparian meadow and floodplain, including 32 acres of SEZ area. Restoration would allow room for a more meandering channel and increased floodplain connectivity, which would restore geomorphic function and critical habitat to an 11,840-foot long reach of the Upper Truckee River, extending it to approximately 13,430 feet.

As described in Section 2.2.1, "Considerations in Definition of the Study Area," and Section 2.5.1, "Project Features, Golf Course Design Layout," of the draft EIR/EIS/EIS, areas selected for reconfiguration were chosen to minimize potential golf course impacts on the natural ecosystem while providing a high-quality recreational opportunity, maintaining open space, and preserving the visual and functional quality of the landscape. The reduced effect on the natural ecosystem would be achieved by placing the relocated golf course in relatively open and previously disturbed areas (second- and third-growth forests and former quarries), minimizing golf use adjacent to the river, and maximizing higher capability lands (as defined by TRPA and the Bailey System [Bailey 1976]). The design would incorporate measures to continue Audubon Sanctuary certification through the Audubon Cooperative Sanctuary Program for Golf Courses with ecologically sound land management and the conservation of natural resources.

The reconfigured golf course design concept is intended to make the best use of the site, provide recreation values, and generally avoid the most sensitive areas adjacent to the river while attempting to maintain a buffer (approximately 200 feet) between the golf course and existing houses in the North Upper Truckee neighborhood. A target style golf course is planned under the proposed Preferred Alternative, which involves minimized disturbance through designing with existing topography in mind and placing wider turf areas only in main landing zones so that turf areas are narrower near tees. All turf areas (which are intensively managed) would be buffered using native grasses (which are minimally managed). The existing golf holes would be modified to match this style. Golf course holes remaining on the east side of the river would be reconfigured and upgraded to improve drainage, turf quality, irrigation efficiency, and the water collection system and to incorporate current best management practice (BMP) technology.

As part of this reconfiguration, the unnamed creek crossing the center of the golf course and discharging into the Upper Truckee River also would be modified (e.g., setbacks and buffer areas between turf areas and the creek would be added, and the buffer areas would be planted with native vegetation). All areas where existing golf facilities would be removed within the current golf course footprint would be restored to a native landscape and would be removed from the Lake Valley SRA. These areas would receive minimal grading to restore natural topography and drainage. They would then be planted with native vegetation and managed only for natural values as part of Washoe Meadows SP.

Changes under the proposed Preferred Alternative would include (approximate numbers based on conceptual design):

- reduction of golf course directly adjacent to the river from 6,382 to 850 linear feet (425 linear feet on each side),
- net restoration of 23 acres of 100-year floodplain and 32 acres of SEZ area,
- reduction of golf course in SEZ area from 128 acres to 96 acres, and
- improved connectivity for wildlife use of the riparian corridor.

The existing golf course is a par 71, 6,741-yard regulation golf course with 98 acres of irrigated, fertilized turf. The proposed golf course would be approximately the same par and yardage, with approximately 85 acres of irrigated fertilized turf. The overall footprint would be approximately 22 acres larger to allow more efficient use of the landscape—specifically, to minimize grading and incorporate buffer areas to treat runoff in the minimally managed areas. The minimally managed areas would remain in native vegetation but would have golf-related uses associated with them, including treatment of runoff, recreation or golf trails, or ponds. They would be managed to limit the vegetation to lower stature native species in many locations.

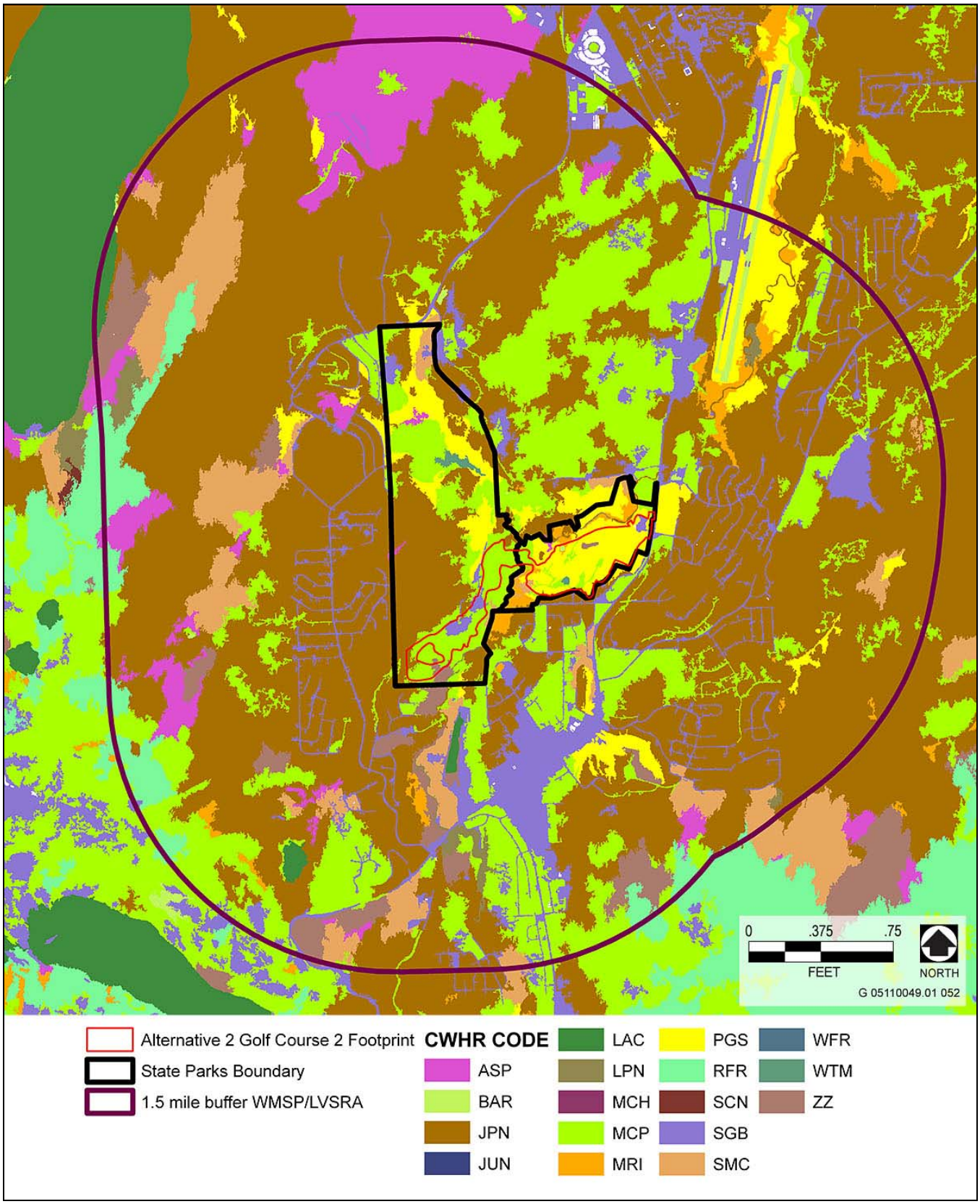
Comparison of Habitat Value of Areas Proposed in Boundary Change

The California Wildlife Habitat Relationships (CWHR) information system was developed cooperatively by the University of California, Berkeley, and the California Department of Fish and Game (CDFG) (CDFG 2011; Airola 1988; USFS 2003). It contains information relating to the habitat preferences of 643 terrestrial vertebrate species found in California, and it allows a user to predict the occurrence and habitat quality for any of these species based on the presence of specific habitat types and habitat elements. The system includes notes for each species regarding life history, legal status, and habitat requirements. It also includes range maps for each species.

The CWHR system, like many other vegetation classification systems, uses a combination of plant species, size, and density to classify habitats. Broad habitat types are based on plant life form: tree, shrub, forb/graminoid, or aquatic. The CWHR system then uses this habitat classification to identify habitat relationships between the vegetation found in an area and the wildlife likely to be found in that area. State Parks used the CWHR geographic information system (GIS) maps to compare wildlife habitat for the area in and around the park units. The results, as discussed below, demonstrate that the reconfiguration area of the golf course includes primarily common, widespread habitat types, whereas the area that would be restored has less common habitat that is more critical to wildlife.

For additional clarification and support of the original findings that the removal of common habitat under Alternative 2 would not constitute a substantial change for or significant impact on wildlife species or wildlife corridors, State Parks conducted an additional habitat analysis using the broad CWHR GIS-based maps presented in Exhibit 3-1. All area calculations were made from the GIS layers and indicate existing conditions. State Parks analyzed the proposed Preferred Alternative golf course footprint, both Washoe Meadows SP and Lake Valley SRA, and the area surrounding the park (a 1.5-mile buffer) to evaluate proposed golf course reconfiguration area as it relates to the surrounding habitat (Table 3-1).

As shown in Table 3-1, more than 50% (5,046 acres) of Washoe Meadows SP and the 1.5-mile buffer area analyzed is composed of Jeffrey Pine (CWHR Type – JPN, CDFG--open Canopy type) and Montane Chaparral (CWHR Type – MCP, CDFG- shrubland type), making up slightly more than 20% of this same area. These two vegetation communities make up nearly three-quarters of the entire area used for the analysis. A visual assessment of the CWHR map for the region shows these vegetation types appear to be consistently common throughout the entire Tahoe Basin.



Source: Data provided by State Parks in 2011

California Wildlife Habitat Relationship (CWHR) types within Upper Truckee River and Golf Course Reconfiguration Project Area and Vicinity **Exhibit 3-1**

Table 3-1
Habitat Types within the 1.5-Mile Buffer of Washoe Meadows State Park and Lake Valley State Recreation Area

CWHR Type	CWHR Code	Acres	Percent of Total Acres
Aspen	ASP	490.47	5.22
Barren	BAR	17.69	0.19
Jeffrey Pine	JPN	5,046.01	53.72
Lacustrine	LAC	45.42	0.48
Lodgepole Pine	LPN	58.53	0.62
Montane Chaparral	MCP	1,945.77	20.71
Montane Riparian	MRI	83.35	0.89
Perennial Grass	PGS	380.42	4.05
Red Fir	RFR	198.81	2.12
Sagebrush	SGB	642.91	6.84
Sierran Mixed Conifer	SMC	476.34	5.07
Wet Meadow	WTM	7.62	0.08
Total		**9,393.34**	

Source: Data provided by State Parks in 2011

Also of interest is that some of the critical sensitive habitats (Montane Riparian – MRI, Perennial Grass – PGS, and Wet Meadow – WTM) combined account for only approximately 5% of the area considered.

Analysis of habitat within the existing State Park boundaries (Washoe Meadow SP, Lake Valley SRA, and areas outside of the study area) yields results similar to the percentages shown in the buffered area described above (Table 3-2). Jeffrey Pine and Montane Chaparral have the greatest areas, making up more than 60% of the existing habitat types. Areas of the Montane Chaparral include lodgepole pine, shrubs, and dry meadow. Within the park boundaries, Perennial Grass (CDFG-Herbaceous vegetation, noninundated) makes up slightly more than 25% of the habitat types. The existing golf course is located entirely within the Perennial Grass habitat type and is composed almost completely of nonnative vegetation, but areas of native grass vegetation are located outside the existing golf course in the units, mostly in dry and mesic meadows. The Wet Meadow habitat type makes up less than 1% and the Montane Riparian less than 3% of the area within the State Parks boundaries. About 40 acres of golf course turf would be restored with native vegetation along the restored river corridor to a combination of Wet Meadow, Montane Riparian, and Perennial Grass (native) habitat types.

Within the proposed Preferred Alternative golf course footprint, Perennial Grass comprises the largest area of existing vegetation (nearly 50%, mostly nonnative turf, including the existing golf course that will remain as turf) (Table 3-3). For areas on the west side of the river under the proposed Preferred Alternative, the golf course would primarily affect vegetation classified as Montane Chaparral, which makes up nearly 40% of the area within the conceptual footprint. Roughly 4 acres of Jeffrey Pine habitat would be affected, which is approximately 2% of the total Jeffrey Pine habitat in the park units. Other habitat areas that would potentially be affected by the golf course on the west side of the river include Sagebrush and a small area of Sierran Mixed Conifer. Thus, common habitat types would primarily be used for golf relocation to restore less common, more critical habitat types.

Table 3-2
Habitat Types in Washoe Meadows State Park and Lake Valley State Recreation Area (including Areas outside of the Study Area)

CWHR Type	CWHR Code	Acres	Percent of Total Acres
Aspen	ASP	4.63	0.60
Barren	BAR	0.45	0.06
Jeffrey Pine	JPN	267.79	34.58
Lodgepole Pine	LPN	2.91	0.38
Montane Chaparral	MCP	225.54	29.12
Montane Riparian	MRI	20.45	2.64
Perennial Grass	PGS	197.62	25.52
Sagebrush	SGB	24.80	3.20
Sierran Mixed Conifer	SMC	22.69	2.93
Wet Meadow	WTM	7.62	0.98
Total		**774.50**	

Source: Data provided by State Parks in 2011

Table 3-3
Existing Habitat Types in the Proposed Preferred Alternative Golf Course Footprint

CWHR Type	CWHR Code	Acres	Percent of Total Acres
Barren	BAR	0.45	0.30
Jeffrey Pine	JPN	4.21	2.78
Montane Chaparral	MCP	58.93	38.92
Montane Riparian	MRI	1.40	0.92
Perennial Grass	PGS	73.34	48.43
Sagebrush	SGB	11.21	7.40
Sierran Mixed Conifer	SMC	1.02	0.67
Wet Meadow	WTM	0.86	0.57
Total		**151.43**	

Source: Data provided by State Parks in 2011

3.2.2 CONSISTENCY WITH APPLICABLE PLANS, POLICIES, AND REGULATIONS

This master response addresses comments on the draft EIR/EIS/EIS related to the consistency with plans, policies, and regulations applicable to the exchange of land between Lake Valley SRA and Washoe Meadows SP. Comments specifically addressed the consistency of the proposed land exchange with the 1984 litigation settlement agreement, the California "urgency statute," public resources codes, the Washoe Meadows SP purpose statement, State Parks policies, State Parks' *Planning Handbook* and *Lake Valley State Recreation Area River Management Plan—Upper Truckee River* (River Management Plan), the definition of a State Park, and SRA policy. This section of this master response responds to all or part of the following comments: AOB4-3, AOB8-8,

AOB8-11, AOB8-22, AOB24-2, AOB24-4, AOB29-1, AOB30-1, AOB31-2 through AOB31-8, AOB31-14, AOB31-15, AOB-31-21, I6-1 , I6-2, I7-1, I10-2, I18-1, I50-1, I54-4, I55-1, I64-1, I64-11, I64-15, I64-16, I64-22, I111-4, I157-18, I160-1, I161-1, I165-1, I174-1, I179-10, I188-1, PM1-14, PM1-20, PM2-63.

CONSISTENCY WITH 1984 SETTLEMENT AGREEMENT

Commenters state that Alternative 2 would not conform with the 1984 settlement agreement and cite language related to the unique characteristics of the property and the presence of rare eastern brook trout habitat. (See the response to comment I64-5 for a discussion of eastern brook trout.) Commenters also state that the decision to continue operation of the golf course may contradict the 1984 settlement agreement. The wording in the settlement agreement being referred to is contained in what is commonly called a "recital clause" or "recital." A recital clause can be included in any agreement and is often preceded by the word "whereas." Recitals represent an expression of intent in a "whereas" clause of an agreement.[1]

In general, recitals are not legally binding. Recitals can be included for a number of reasons. They can be included to provide context for the agreement, such as the legal relationship of the parties and the background facts that gave rise to the agreement. Recitals are not considered an operative part of the agreement.[2] For instance, in *Emeryville Redevelopment Agency v. Harcros Pigments, Inc.* (2002) (101 Cal. App. 4th 1083), the court found that the recital in question "was not a contractual undertaking but a declaratory statement on a matter of no apparent consequence as between the signatories." The law has long distinguished between a "covenant," which creates legal rights and obligations, and a mere "recital," which a party inserts for his or her own reasons into a contractual instrument. Recitals are given limited effect even between the parties to the agreement. The recital here does not even concern a matter of *fact* but states at most the *opinion* of one or both parties that one part of the property is more valuable than the other" (italics in original).[3]

Therefore, the assertion that the EIR/EIS/EIS does not conform to the language of the settlement agreement is unfounded, as the recital clauses cannot be relied on to determine the intent of the settlement agreement. The settlement agreement addresses the transfer of property from Lake Country Estates, Inc., to State Parks and addresses property in both Lake Valley SRA and Washoe Meadows SP. The recitals concern the opinions of some or all of the parties.

In addition, the subsurface stream that provides eastern brook trout habitat described in the settlement agreement flows northeast out of the fen. Both the fen and the stream are upgradient and outside of the project area. As described further in Master Response Section 3.3, "Biological Resources," and Master Response Section 3.4, "Hydrology, Flooding, Geomorphology, and Water Quality," neither would be affected by implementing any of the alternatives. One of the outcomes of implementing the project would be to improve the Upper Truckee River ecosystem, including fish habitat.

CONSISTENCY WITH CALIFORNIA STATUTE OF 1984, CH. 1470 SEC. 3

Commenters state the project is inconsistent with the "urgency statute" (California Statute of 1984 CH. 1470 SEC. 3)**.** This legislation was used to allocate funding to purchase the property at issue. Such legislation is traditionally carried in an urgency bill because it involves property and money and because there is no need to wait for the statute to take effect in the next calendar year, as most statutes would. The basis for the urgency status is often stated in somewhat hyperbolic terminology to justify the purchase of property. It does not provide substantial evidence of the reason for the purchase by itself. The statute also says that "the property shall be

---

1 *Genovese Drug Stores, Inc. v. Conn. Packing Co.* (1984) 732 F.2d 286, 291.

2 *Jones Apparel Group, Inc. v. Polo Ralph Lauren Corp.* (2005) 791 N.Y.S.2d 409, 410; *Trump Village Section 3, Inc. v. New York State Housing Finance Agency* (2002) 739 N.Y.S.2d 37, 38; *McDonough v. Chu Chew* Shong (1937) 21 Cal.App.2d 257, 259; *County of Los Angeles v.* Farnsworth (1935) 4 Cal.App.2d 516, 522; Ross *v. Ross* (1931) 253 N.Y.S. 871, 872.

3. *Emeryville Redevelopment Agency v. Harcros Pigments, Inc.* (2002) 101 Cal. App. 4th 1083, 1101

operated and maintained by the Department of Parks and Recreation in a manner which promotes its environmental *and recreational* values. In addition, the land use designation by the TRPA classifies this area as a stream environment zone (SEZ) and encourages its management 'for outdoor recreation and natural resources values to include opportunities for SEZ restoration'". State Parks is balancing the dual goals of (1) facilitating the operation of the golf course, which provides a uniquely affordable opportunity for play on a regulation golf course for residents and visitors in the South Lake Tahoe area, and (2) restoring the stream environment of the Upper Truckee River, both of which are consistent with the statute, settlement agreement, and regional and local land use plans and policies.

CONSISTENCY WITH CALIFORNIA PUBLIC RESOURCES CODE

As described in the following subsections, commenters state that the project would be inconsistent with various sections of the California Public Resources Code.

Section 5001.9

Commenters state that the project would be inconsistent with PRC Section 5001.9 because no part of Washoe Meadows SP may be used for any use other than open space. Assigning and changing classifications is the role of the State Park and Recreation Commission. A golf course would not be built in Washoe Meadows SP. A portion of land (80 acres) would be transferred to Lake Valley SRA. An approximately corresponding amount of acreage (68 acres) currently in Lake Valley SRA would be transferred to Washoe Meadows SP. This transfer would be one of the actions recommended to the commission for final action.

Section 5002.1

Commenters state that the project would be inconsistent with PRC Section 5002.1 because the inventory prepared for the properties would need to be updated before the property is reclassified. The original inventory covered the entire 777-acre property (the study area occupies only 520 acres). The Lake Valley SRA designation applies to approximately 170 acres, or approximately 20% of the property, and the golf course covers 134 acres, less than 17 % of the original land covered by the settlement agreement. The relocation of a portion of the golf course west of the river constitutes approximately 10% of the total 777 acreage. The original inventory is consistent with existing conditions, and an updated inventory is not necessary to implement the project.

In addition, numerous studies were conducted to determine the presence/status of sensitive natural and cultural resources in Washoe Meadows SP and Lake Valley SRA before the EIR/EIS/EIS study area was identified and before consideration was given to where the golf course could be located to minimize potential impacts. Surveys were conducted for northern goshawk, California spotted owl, small mammals, willow flycatcher, migratory songbirds, and bank swallow, and an owl and waterfowl inventory and vegetation mapping also were conducted. The land capability for the area was verified by TRPA (TRPA file number LCAP2008-006). Archaeological studies were conducted for the entire park, and all potentially significant sites were further evaluated, with SHPO concurrence (Appendix L).

Section 5002.2

Commenters state that the project would be inconsistent with PRC Section 5002.2 because no changes to the land uses can be made unless a general plan is prepared. State Parks acquires, in many different ways, many acres of land that have many different values. After the property is acquired, State Parks must manage the land in accordance with the agency's mission. That may mean folding a new acquisition into an existing park unit or leaving it as a stand-alone park. It may include dividing the property into various parts to manage the land most appropriately. Section 5002.2 does require the preparation of a general plan before "development." However, with the boundary change that would be implemented as part of the proposed Preferred Alternative, no development would occur in an area without a general plan. The boundary of Lake Valley SRA would be modified to include

the new development associated with reconfiguration of the golf course. A general plan that addresses recreational use associated with the golf course has already been prepared for Lake Valley SRA.

In this case, State Parks has evaluated the relative values of the land contained in the Lake Valley SRA and Washoe Meadows SP. State Parks believes that an exchange of land between Washoe Meadows SP and the Lake Valley SRA would facilitate the reconfiguration of the golf course without damage to Washoe Meadows SP and that it would support restoration of the stream. The values of the lands exchanged between the units are discussed in more detail above. However, State Parks is not required to prepare a general plan for a park that is not slated to have any development as a result of this decision.

Section 5019.53

Commenters state that Washoe Meadows SP was purchased because it contains many important historical, archaeological, ecological, and geological properties and values and that fragmenting the park would be inconsistent with PRC Section 5019.53. The resource inventory indicates that Lake Country Estates (Washoe Meadows SP and Lake Valley SRA together) makes up less than 1% of the Lake Tahoe watershed. The area to be transferred from Washoe Meadows SP to Lake Valley SRA is described in that document as primarily middle mountain forest biotic community, dominated by lodgepole pine and Jeffrey pine, which is heavily represented in other public lands in the area. As discussed above, most of the area in Washoe Meadows SP to be transferred to Lake Valley SRA is classified as the Montane Chaparral type (consisting mostly of lodgepole pine), which occupies approximately one-third of both park units. This forest-dominated habitat type is far more common in the Tahoe Basin, whereas the wet meadows and riparian areas are much less widespread, have been more heavily affected by development, and are widely recognized as critical habitat for many species.

As described in Master Response Section 3.6, "Cultural Resources," the Washoe Indian cultural and historical sites would be protected, and the Celio ranch (old barn) is located outside the study area. Areas with rare plants, fens, and springs have been avoided, or mitigation has been added to the project to protect those specific resources, and extensive wildlife habitat suitable for rare and endangered species is still available and would benefit from the project, as described further in Master Response Section 3.3, "Biological Resources." The riparian corridor along the Upper Truckee River would be more continuous, with a shift from the current 6,382 linear feet of golf course directly adjacent to the river to 850 linear feet under the proposed Preferred Alternative. The stream habitat that would be transferred to Washoe Meadows SP has a higher habitat value based in the CWHR system than the Middle Mountain Forest, which is a common habitat in the Lake Tahoe area.

Section 5019.56

Commenters state that the project would be inconsistent with PRC Section 5019.56 because state recreation areas are not intended to include lands with significant ecological, geological, scenic, or cultural resource values. As part of implementation of the proposed Preferred Alternative, lands incorporated into the golf course would become state recreation area. Lands outside of the golf course footprint would be designated as state park. See the discussion of "Habitat Values of Lands Being Exchanged," above for more detail.

CONSISTENCY WITH WASHOE MEADOWS STATE PARK PURPOSE STATEMENT

Commenters state that Alternative 2 would not be consistent with the Washoe Meadows SP purpose statement because it states that the park was acquired to preserve and protect the wet meadow area. As discussed previously, the golf course was approximately 134 acres of the total 777 acres purchased by State Parks under the settlement agreement, which is approximately 20% of the total. The amount of land that would be needed to restore the Upper Truckee River to its pre-1940s configuration and relocate the golf course is approximately 90 acres of the current Washoe Meadows SP. Much of the restored river area and surrounding active floodplain(approximately 40 acres) would be added back to Washoe Meadows SP. This riparian habitat type is considered more sensitive and limited in the Tahoe Basin than the Jeffrey and Lodgepole habitat types that would be converted to golf

course. This exchange is also more consistent with the wetlands and open meadows of Washoe Meadows SP. See the previous discussion regarding habitat values of lands exchanged between the two units.

Also note that the original 2000 Statement of Purpose for WMSP referred to "an exceptionally large specimen of lodgepole pine". Since that time, the tree died and fell as a result of natural processes.

CONSISTENCY WITH STATE PARKS POLICIES

Policy I.1, 2005 California Recreation Policy

Commenters state that allowing golf course holes to remain near the river would be inconsistent with Policy I.1, which calls for management actions that strive to correct problems that have the potential to damage sensitive areas. The purpose of the project is to correct a long-standing problem related to land use disturbance of the stream channel and floodplain and to continue recreational opportunities. The project would be consistent with this policy because it would be striving to correct problems that are degrading the sensitive habitat along the Upper Truckee River.

Policy II.1, Integrity of State Park System Lands

Commenters state that the project would be inconsistent with Policy II.1 because it would involve changing land uses in the park units. As described in Policy II.1, acquired land is subject to the provisions of law and to general policy established by the State Park and Recreation Commission. In addition, Policy II.1 states that the director of State Park and Recreation Commission shall, whenever possible, provide for the use of State Park System lands as classified and planned and shall not grant nonconforming uses without the concurrence of the State Park and Recreation Commission. Policy II.1 does not discourage changes in land use of lands managed by State Parks. The transfer of land between the two parks and the general plan amendment are described on page 2-56 of the draft EIR/EIS/EIS. As described in the draft EIR/EIS/EIS, only the State Park and Recreation Commission can process a classification or reclassification and approve a general plan or amendment. This is consistent with Policy II.1.

Although approximately 90 acres of Washoe Meadows SP would be transferred to Lake Valley SRA, 40 acres of land (adjacent to the river) would be transferred to Washoe Meadows SP from Lake Valley SRA.

Policy II.2, Classification and Naming Units, Features, Groves, and Trails of the State Park System (Amended May 4, 1994)

Commenters state that the wording of Policy II.2 indicates that the classification and naming process of the State Park System results in a permanent name and classification for a park unit. The only reference in this policy to the idea that a classification never changes is the word "permanent"; however, this reference is not intended to mean that the classification never changes. Instead, it is a reference to the fact that units often come with a name or acquire a temporary name before they have a permanent name. The permanent name is used in part to identify the nature of the park. The reference to "permanent name" does not necessarily mean that unit classifications or names would never change. Management of park units should remain flexible. If a classification needs to change, it can be changed through the State Parks and Recreation Commission approval process.

Policy II.4, Preservation of Vegetative Entities

Commenters state that Policy II.4 indicates that State Parks should acquire and preserve outstanding examples of native California species. They state that the project would be inconsistent with this policy because implementing the project would result in potential impacts on the sensitive species associated with the fen in Washoe Meadows SP. This policy refers to the integrity and diversity of plants and the replacement of those plant communities from similar genetic stock. As discussed on page 2-35 in Chapter 2, "Project Description," existing plants from the area would be "stockpiled" for replacement use. As discussed previously, the habitat that would be transferred to

Washoe Meadows SP is actually more similar in value (mostly riparian) to most of Washoe Meadows SP than the area that is being transferred to Lake Valley SRA from Washoe Meadows SP (upland previously disturbed second- and third-growth forest habitat). The Jeffrey/lodgepole pine community is not a unique community for this area. See the vegetation map and previous discussion.

The fen at Washoe Meadows SP is classified as a sloping fen (also called soligeneous peatland). Sloping fens occur in valley bottoms where alluvial groundwater supports peat formation or at the base of slopes where groundwater discharges to the surface as a result of either a break in the topography or a change in geology (Weixelanm and Cooper 2008). This fen type is the most common type of fen in the Sierra Nevada and is usually underlain by springs or a complex of groundwater discharge points. The fen is located outside and upslope of the potential golf course relocation site (Exhibit 3.5-1, Chapter 5 of this document). Choosing a golf course relocation site that is downslope of the fen complex would avoid impacts on or degradation of the fen. (See Master Response Section 3.3, "Biological Resources," and Section 3.4, "Hydrology, Flooding, Geomorphology, and Water Quality," for additional discussions.) The quarry floor, where seepage from the fen drains from the quarry cut-face, collects water and has begun to form a small wetland, potentially a vernal pool. This area has little soil (all of the original soil was removed during sand-gravel extraction) and has no peat. Although Alternative 2 originally was designed to enhance this area, it was never part of the proposed golf course footprint. The proposed Preferred Alternative now would completely avoid this area.

Policy II.5, Wildlife Management in Units of the State Park System

Commenters state that the project would be inconsistent with Policy II.5 because reconfiguration of the golf course would not protect native wildlife in a natural status within State Park System unit boundaries and quote language from the policy. The policy states that:

> The purposes of the State Park System include protection of native wildlife in a natural status within State Park System unit boundaries; therefore, programs of wildlife management involving the introduction and propagation of missing species or the reduction of existing species population may be undertaken only after careful study of the effect of such management on the ecological stability of the area and approval of the management program by the Commission.

In fact, this project meets multiple aspects of the mission of State Parks because it addresses the need to provide for high-quality recreation and to protect natural resources:

> The mission of the California Department of Parks and Recreation is to provide for the health, inspiration and education of the people of California helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation.

Therefore, transformation of parkland to golf landscape is not counter to the purpose of this policy or the mission of State Parks because transformation of parkland to golf landscape would occur only to allow the restoration of the Upper Truckee River. The proposed Preferred Alternative involves reconfiguring an existing golf course; therefore, there would be no increase in turf area.

Restoration of the river would increase the "protection of native wildlife in a natural status within State Park System unit boundaries" by increasing the amount of riparian habitat in the Lake Tahoe Basin. The river corridor is known to support sensitive wildlife species and has the potential to support many more (and therefore increase diversity and abundance) if restored. The golf course turf is not a barrier to wildlife movement, as discussed in Section 3.5, "Biological Resources," of the draft EIR/EIS/EIS and in Master Response Section 3.3, "Biological Resources." American robins and other native bird species forage on the golf course. Mammals such as coyotes and bears cross and move along golf course turf. River restoration such as that proposed under the proposed Preferred Alternative should increase the diversity and abundance of wildlife in the area.

Further, riparian areas have an intrinsic habitat value for diverse species and help to maintain ecological connectivity across the landscape. It has been determined that maintaining and enhancing riparian corridors and aquatic systems in California would greatly enhance overall ecological connectivity throughout the state and should be a focus of regional plans (Spencer et al. 2010).

Policy III.1, Planning

Commenters state that this policy indicates the importance of determining the extent of need for recreation in the context of long-range objectives. Commenters state that State Parks periodically conducts surveys to determine recreational trends and that these surveys show a decline in golf, which is counter to implementation of the proposed Preferred Alternative. Appendix E, "Lake Tahoe Golf Course Economic Feasibility Analysis," to the draft EIR/EIS/EIS acknowledges that the Lake Tahoe Golf Course has experienced declining gross revenues since 1997. However, there has also been a corresponding decrease in tourism throughout the Tahoe Basin and entire region. See Section 3.5, "Recreation," for a discussion of recreational uses of the study area.

Policy III.6, Development of Facilities within State Parks and State Seashores

See the previous discussion of consistency with the settlement agreement.

Policy III.7, Conflicting Recreational Use

Commenters state that the project would be inconsistent with Policy III.7 because it states that recreational uses that are damaging to sensitive resources should be reconsidered. The purpose of the project is to correct existing and ongoing damage to the Upper Truckee River related to the golf course. The project would be consistent with this policy because it involves reevaluating the recreational use causing the damage to the river, repairing the damage to the river, and reducing further damage.

CONSISTENCY WITH STATE PARKS PLANNING HANDBOOK AND RIVER MANAGEMENT PLAN

Commenters state that the boundary exchange would be inconsistent with the statement in the *Planning Handbook*, an internal administrative guide for planning management, that area boundaries need to encompass the significant resources and provide an adequate buffer from adjacent land uses. They also state that the project would be inconsistent with the *Planning Handbook* because haul routes and construction areas are not considered in the boundary exchange and proposed parking facilities would be inconsistent. In addition, commenters state that the project would be inconsistent with the draft River Management Plan for the study area and that the *Planning Handbook* states that specific project plans should not proceed until a management plan in place.

State Parks has proposed shifting the boundaries between the Lake Valley SRA and Washoe Meadows SP to allow for the restoration of the Upper Truckee River. To take the golf course out of the original channel of the river but still continue to offer the recreational opportunities of the existing 18-hole golf course, State Parks would move the boundaries of the two classifications to allow the transfer of river-related habitat currently in Lake Valley SRA to Washoe Meadows SP, which has habitat similar in value to the meadows and water-related areas. In turn, forested and dry meadow land in Washoe Meadows SP that is not unique to the area would be used to accommodate a relocation of a portion of the golf course away from the river channel. The boundary was based on the existing footprint of the golf course, not on resource values. Since that time, State Parks has learned more about the resources, land values, and the importance of restoring the Upper Truckee River.

The *Planning Handbook* does not address the type of action proposed at Lake Valley SRA and Washoe Meadows SP, so the action cannot be portrayed as being contrary to the handbook. The *Planning Handbook* provides general guidance and does not address all areas of park planning management.

The haul route on the west side of the river would be located along existing gravel and dirt roads (Exhibit 2-7 in the draft EIR/EIS/EIS and Exhibit 2-5 in the final EIR/EIS/EIS), which provide access for South Tahoe Public

Utility District (STPUD) sewer line maintenance, as well as for State Parks resource management and patrol access. These are existing roads, and construction use would be temporary. (Note: State Parks also included the southern portion of that road in the area that would be moved into the SRA, as shown in Exhibits 2-1 and 2-3 in the final EIR/EIS/EIS.) Therefore, these areas were considered when determining the boundaries proposed to be exchanged.

Commenters state that proposed parking facilities in Washoe Meadows SP would be inconsistent with the *Planning Handbook*. The "parking facilities" consist of space for one, two, or three vehicles and possibly a portable toilet. These facilities would not be permanent and would not constitute development. No infrastructure would be put in place, and the parking and sanitary facilities could be removed at any time. Furthermore, the areas considered for parking facilities are currently used for these purposes and these facilities would assist in protection of natural resources in these areas with BMPs.

Commenters reference consistency with the Specific Project Plan, detailed on page 155 in the Planning Handbook. Specific Project Plans are the detailed implementation plans to accomplish specific projects or management plans. For example, this is the guidance State Parks would use for a project such as a visitor's center, which would be preceded by an interpretive management plan. A Specific Project Plan has not been prepared for this project: it is not the type of project that would be implemented under a Specific Project Plan. Preparation of a detailed plans and specifications will occur once the CEQA process is completed, and these are the project plan for implementation. Although it is a complex project in terms of the restoration aspects, it is not a complex project "development wise" such as a visitor's center that would involve a number of different divisions, and the tasks of sighting and building construction. Natural area restoration is a standard project for State Parks and the plans for implementation are not referred to as specific plans.

Management plans are not publicly adopted documents that go through a comment and response process. They are internal documents used to guide activities carried out by State Parks staff. If such plans trigger actions that could cause changes in the physical environment sufficient to require review under the California Environmental Quality Act (CEQA), then the CEQA process is implemented. State Parks started with the need to restore the river while maintaining recreational uses that are currently provided in the study area. The staff developed several alternatives that could be considered. Because of the need to prepare both an EIR and an EIS, the alternatives were presented without reference to a preferred project or any approval of actions leading to any change in the physical environment. One of the reasons why CEQA has an exemption for feasibility studies is so a project proponent has an opportunity to plan its course of action (see State CEQA Guidelines Section 15262).

CONSISTENCY WITH STATE PARK DEFINITION

Commenters state that construction of a golf course in Washoe Meadows SP is inconsistent with the definition of a State Park. State Parks is not proposing construction of a golf course in a State Park. The proposed Preferred Alternative proposes a boundary modification for both Washoe Meadows SP and Lake Valley SRA, as well as a general plan amendment for Lake Valley SRA, to accommodate the restoration of the river and subsequent relocation of portion of the golf course. The proposed Preferred Alternative would be implemented only with the boundary modifications and general plan amendment that would ensure that the entire golf course would be located completely in Lake Valley SRA. Golf courses are consistent with the state recreation area land use designation.

CONSISTENCY WITH SRA POLICY

Commenters state that the project would be inconsistent with the Stream Management Sensitivity Zone policy that calls for restoration of the natural stream configuration. Commenters state that the Lake Valley SRA General Plan was implemented to increase the Stream Management Sensitivity Zone to more than 70 acres. The increase in the zone to more than 70 acres described in the Lake Valley SRA General Plan included the proposed acquisition of approximately 67 acres; thus only restoration of 3 acres is actually described. The additional 67 acres was never acquired. Implementing the proposed Preferred Alternative would return the Upper Truckee River to a more

natural stream configuration and would increase the Stream Management Sensitivity Zone acreage by 32 acres. It would not preclude additional acquisitions in the future from willing sellers. Increasing the acreage of the Stream Management Sensitivity Zone would further the policies in the Lake Valley SRA General Plan.

3.3 BIOLOGICAL RESOURCES

3.3.1 BASELINE CONDITIONS USED IN THE ENVIRONMENTAL ANALYSIS

This master response addresses comments on the draft EIR/EIS/EIS related to the selection and use of a "baseline." Comments specifically addressed the selection and description of a baseline for evaluation of impacts related to upland habitat that would be converted to golf course features under Alternative 2. Commenters state that the baseline used in the draft EIR/EIS/EIS is inadequate and therefore that impacts of the project were not evaluated adequately. This section of this master response addresses general comments made on the adequacy of baseline information presented in the EIR/EIS/EIS and responds to all or part of the following comments: AOB2-7, AOB8-16, AOB9-2, AOB24-8, AOB30-3, AOB30-21, I23-1, I23-3, I70-1, I82-2, I82-4, I192-5 I238-5, PM1-14.

A primary purpose of an EIR/EIS/EIS is to inform decision-makers and the public about the potential environmental impacts of a project. The impacts of a project are evaluated based on the direct and reasonably foreseeable indirect physical changes in the environment that may be caused by implementing the project (either on a project-specific basis or in a cumulative context), and the setting or environmental baseline provides the starting point for that analysis. In the biological resources section, the current "baseline" conditions are a reflection and culmination of historical and existing and ongoing activities that affect a specific resource, and the true baseline condition is often a dynamic range of conditions. The setting describes terrestrial and aquatic habitats located in the study area, along with the potential for special-status plant and animal species to occur in these areas. The characterization of the existing setting is drawn from literature and database searches, analysis of aerial photographs, consultation with biological resource agencies, and field surveys. Establishing a proper baseline is not limited to a snapshot in time but relies on a wide range of resource information gathered over time (in many cases, decades) to fully understand the environmental context. Here, the current baseline conditions have been described to provide a clear context for understanding and evaluating project impacts.

Most of the comments related to the baseline conditions were directed toward the characterization of upland habitat that would be converted into golf course features under Alternative 2. Habitat that would be removed under Alternative 2 is described Section 3.5, "Biological Resources," of the draft EIR/EIS/EIS; the section "Wildlife Habitat Functions" (pages 3.5-17 through 3.5-21) describes wildlife that could occur in habitat proposed for golf course development under Alternative 2 and describes habitat features important for those species. For example, the draft EIR/EIS/EIS states that the conifer forest in the study area "supports a variety of birds, such as woodpeckers, nuthatches, and kinglets; it also provides suitable roosting habitat for common bat species. This habitat type provides perch sites for raptors such as red-tailed hawk (*Buteo jamaicensis*) and Cooper's hawk (*Accipiter cooperii*) that use meadow areas for foraging" (page 3.5-18). The section goes on to describe how "snags and downed logs, common in lodgepole pine forests in the study area, provide structure for wildlife resting, nests, and dens" and that "in some locations near the river, an understory of riparian shrubs is present, providing further habitat structure for wildlife" (page 3.5-18). This description provides a picture of existing wildlife habitat and is consistent with the intent of creating an accurate baseline for evaluation of impacts.

Comments expressed disagreement with statements in the draft EIR/EIS/EIS that qualified habitat based on historical or current disturbance. In the discussion of impacts under Alternative 2 on resources that may be present in upland habitat (Impact 3.5-9 [Alt. 2]), the draft EIR/EIS/EIS states that "upland habitat in the proposed golf course relocation area is presently degraded and experiences relatively high levels of disturbance from use of volunteer trails by bicyclists and pedestrians (and dogs), and edge effects from adjacent residential development" (page 3.5-87). The draft EIR/EIS/EIS does not conclude that the habitat has no wildlife value or that the project would not have an effect on wildlife present in the proposed golf course reconfiguration area. The discussions of Impacts 3.5-8 and 3.5-9 describe in detail how the conversion of approximately 60 acres of lodgepole pine forest,

Jeffrey pine forest, dry meadow, sagebrush dry meadow, and other vegetation types as a result of golf course reconfiguration would affect special-status and common wildlife species. The baseline information was used, along with the significance criteria (pages 3.5-56 and 3.5-57), to determine significance and the need for mitigation for these project actions. Comments addressing the impact evaluations for specific wildlife and wildlife corridors are discussed in the following subsections.

3.3.2 IMPACT ANALYSIS FOR WILDLIFE AND WILDLIFE MOVEMENT CORRIDORS

This master response addresses comments on the draft EIR/EIS/EIS related to the impact analysis conducted for potential impacts on wildlife and wildlife movement corridors. Commenters specifically addressed the conclusions of the impact analysis pertaining to upland habitat and species that could be affected from conversion of forest habitat to golf course features under Alternative 2. Commenters state that impacts on wildlife movement corridors and fragmenting Washoe Meadows SP are not adequately addressed in the draft EIR/EIS/EIS. This section of this master response addresses general comments made on the adequacy of the impact analysis for wildlife and wildlife movement corridors presented in the draft EIR/EIS/EIS and responds to all or part of the following comments: AOB1-1, AOB4-1, AOB8-20, AOB9-2, AOB9-5, AOB12-1, AOB13-1, AOB14-1, AOB24-4, AOB24-8, AOB30-3, AOB31-16, AOB31-20, AOB31-26, AOB31-57, I3-1, I4-1, I7-5, I6-2, I7-11, I7-12, I13-8, I18-1, I18-2, I20-1, I20-2, I23-1, I23-3, I31-1, I41-1, I43-1, I50-1, I52-1, I54-1, I54-4, 155-1, I157-13, I64-4, I64-7, I64-9, I64-12, I64-19, I165-1, I70-1, I79-1, I82-2, I83-1, I110-1, I153-2, I157-13, I161-1, I179-6, I179-8, I179-9, I190-1, I191-1, I192-1, I192-5, I201-1, I216-1, I216-2, I222-1, I238-3, I238-5, I238-10, I239-1, I240-1, PM1-8, PM1-14, PM1-18, PM2-38, PM2-41.

The analysis of potential impacts on wildlife and wildlife movement corridors evaluated in the draft EIR/EIS/EIS was based on the environmental baseline, described above and in the draft EIR/EIS/EIS; project features; and significance criteria established by CEQA, the National Environmental Policy Act (NEPA), and TRPA regulations. These regulations, described in the discussion of significance criteria (pages 3.5-56 and 3.5-57), are generally consistent with their treatment of wildlife resources. CEQA defines a significant impact on biological resources as an action that 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" (page 3.5-56), or would "interfere substantially with the movement of any native resident or migratory fish or wildlife species or established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites" (page 3.5-56). Similarly, NEPA defines a significant impact on biological resources as an action that would "substantially reduce the size, continuity, or integrity of wildlife or fish habitat, or result in unnatural changes in the abundance, diversity, or distribution of wildlife or fish species" or would "have a substantial effect, either directly or through habitat modifications, on any species indentified as a candidate, threatened, endangered, or special-status species under the ESA or the MBTA" (page 3.5-56). TRPA regulations define a significant impact on biological resources as an action that would "cause a substantial change in the diversity or distribution of species, or the numbers of any species of animals (birds or land animals including reptiles, insects, mammals, amphibians, or microfauna)" or would "reduce the number of any unique, rare, or endangered animal species" or "result in a barrier to the migration or movement of animals" (page 3.5-57). These criteria were used to evaluate the level of significance for impacts related to wildlife and wildlife movement corridors.

Commenters disagreed with the determination of the study area's value and use as a wildlife movement corridor. The draft EIR/EIS/EIS confirms that the study area could provide a wildlife corridor and states that "the mix of forest, meadow, and riparian habitat in this block of open space, within the context of the larger complex of open space or low-density development to the north and south of the study area, provides a habitat link within the Upper Truckee watershed and the Tahoe Basin" and that "the primary feature of the study area that provides value for wildlife movement would be the riparian corridor of the Upper Truckee River" (page 3.5-55). The draft EIR/EIS/EIS also concludes that although wildlife certainly use and migrate through the study area, the study area "is not expected to function as a significant corridor for common or sensitive wildlife species due to its proximity to residential neighborhoods to the west (North Upper Truckee Road and adjoining neighborhoods), north (Echo

View Estates, Tahoe Mountain), and south (San Bernardino Road and South Upper Truckee neighborhoods), and well-traveled roads (U.S. 50 to the south and east, Sawmill Road to the north)" (page 3.5-55).

For the alteration of the wildlife corridor to be considered a significant impact under Alternative 2 or the proposed Preferred Alternative, there must be substantial change to the current status of the resource, according to the significance criteria previously described, anticipated as a result of implementing the proposed Preferred Alternative. Implementing the proposed Preferred Alternative would result in habitat restoration involving approximately 97 acres of floodplain and meadow. Riparian habitats of the Upper Truckee River are the primary habitat types within the study area that would function as a wildlife corridor, and these habitat types would be expanded and improved with implementation of the proposed Preferred Alternative. The draft EIR/EIS/EIS describes in detail and provides relevant citations for wildlife habitat relationships of the riparian habitats, including the potential for these habitats to act as a wildlife corridor (pages 3.5-19 through 3.5-21). In its current status, the value of this wildlife corridor (the river and riparian habitats within the study area) is degraded because the golf course abuts the riverbank in several locations and thus the riparian habitat is not continuous. In addition, and as stated in the draft EIR/EIS/EIS, the study area was not identified as a high priority for maintaining regional wildlife corridors by the California Essential Habitat Connectivity Project, a recently-completed, peer-reviewed statewide assessment of important habitat linkages (Spencer et al. 2010). The removal of approximately 60 acres of upland habitat, common to the Tahoe Basin, could disrupt wildlife movement in that area; however, the (mostly common) species that use this habitat type can and do move through a variety of urban and nonurban landscapes. Their movement patterns in the urban, open space, and wildland mosaic of the Upper Truckee Watershed would not be expected to be altered over the long term as a result of implementing the proposed Preferred Alternative.

Commenters expressed concern that removing upland habitat would increase the presence of black bear, coyote, or other common wildlife species in nearby neighborhoods. Although some alteration to movement patterns is anticipated with construction activities and removal of forest habitat, an overall increase in abundance of common wildlife, including black bear, in adjacent neighborhoods is unlikely to occur with project implementation based on the life history traits of these species and the habitat characteristics of these neighborhoods. Species with large home ranges, such as black bear and coyote, are unlikely to establish dens in neighborhoods because they would be disturbed by cars, domestic animals, and other sources of disturbance. They would more likely pass through these areas when travelling between natural environments. Because the neighborhoods do not support all aspects of these species' life history, increased abundance in the neighborhoods is unlikely. Adjacent forestlands with qualities similar to those of the forest habitat that would be removed under the proposed Preferred Alternative could see increases in species abundance; however, because these forest habitats are widespread in the vicinity of the study area, the potential incremental increase is unlikely to be substantial. In addition, the primary motivation for these species to enter neighborhoods—easy access to food sources, such as improperly stored trash and domestic animals (coyotes are known to eat cats and small dogs in the Tahoe Basin)—would not be altered as a result of project implementation.

Commenters were also directed at the impact analysis for common and sensitive wildlife species (mule deer, northern goshawk, bear). In general, these comments expressed disagreement with the conclusions reached in the impact determination for Alternative 2. Mule deer, northern goshawk, and bear observations were reported in comments. Mule deer presence in the study area is assumed in the impact analysis, and the draft EIR/EIS/EIS states that "because the study area provides cover and forage habitat, and the species has been documented nearby, mule deer may occasionally use the study area for foraging" (pages 3.5-53 and 3.5-54). The draft EIR/EIS/EIS also concludes that because of existing "disturbance levels from recreation (including golfers, pedestrians, and bicyclists), and residential development (including the regular presence of dogs), and from adjacent land uses" (page 3.5-53), deer fawning is unlikely to occur in the study area. Overall, the presence of mule deer is anticipated; however the activity and abundance of the species in the study area is expected to be low because of the low abundance of mule deer in the Tahoe Basin and because of the habitat conditions described previously.

Northern goshawk is also mentioned specifically in comments, and observations have been reported. The draft EIR/EIS/EIS reports known occurrences of foraging goshawks and concludes that although no individuals were

identified during protocol surveys, northern goshawks likely forage in portions of the study area. Nesting habitat was determined to be limited in the study area because of forest structure and because "larger areas of higher quality habitat nearby (Saxon Creek, Tahoe Mountain, Trout Creek) are available" (page 3.5-83).

The discussions of Impacts 3.5-8 and 3.5-9 (pages 3.5-81 through 3.5-88) address the short- and long-term potential impacts on common and special-status wildlife. For both common and special-status wildlife, the draft EIR/EIS/EIS acknowledges that if those species are present in the proposed golf course reconfiguration area "construction could disturb individuals and remove foraging habitat" and result in a "loss of habitat and increased localized habitat fragmentation" (page 3.5-87). Despite these potential effects, and in consideration of Mitigation Measures 3.5-8A and 3.5-8B (designed to minimize short-term impacts on special-status species), implementation of Alternative 2 "would not cause wildlife populations to decrease below self-sustaining levels, or result in a change in species diversity" (page 3.5-87) and thus would not cause a significant impact as defined by the CEQA, NEPA, or TRPA significance criteria.

3.3.3 SENSITIVE HABITATS

This master response addresses comments on the draft EIR/EIS/EIS related to baseline information, potential impacts, and impact analysis provided for sensitive habitats (jurisdictional wetlands, riparian vegetation, fens, and SEZ areas). Comments specifically addressed the conclusions of the impact analysis conducted for sensitive and common habitats that could be affected during conversion of forest habitat to golf course features under Alternative 2. Commenters disagree with impact conclusions related to sensitive habitats in the draft EIR/EIS/EIS. Changes incorporated into the final EIR/EIS/EIS include a revised vegetation map and associated descriptions of vegetation type, along with inclusion of additional information on the spring and fen. This section of this master response addresses general comments made on the adequacy of baseline information and the impact analysis for sensitive habitats presented in the draft EIR/EIS/EIS, and responds to all or part of the following comments: AOB8-3, AOB8-14, AOB9-3, AOB9-4, AOB11-3, AOB12-1, AOB13-1, AOB14-1, AOB24-4, AOB24-9, AOB24-10, AOB30-2, AOB30-3, AOB31-16, AOB31-22, AOB31-23, AOB31-25, I7-6, 17-7, 17-8, I18-1, I18-2, I20-1, I54-4, I64-5, I64-21, I111-5, I111-7, I124-1, I157-12, I157-14 through I157-16, I165-1, I179-4, I179-6, I179-7, I179-11, I190-1, I191-2, I192-2, I192-8, I201-1, I209-1, PM1-14, PM2-41, PM2-42, PM2-64.

The environmental setting section of the draft EIR/EIS/EIS describes terrestrial and aquatic habitats located in the study area, along with the potential for special-status plant and animal species to occur in these areas. Comments addressed the adequacy of the vegetation mapping and, in particular, the characterization and mapping of the fen in Washoe Meadows SP. To respond to these comments fully and to update the baseline with information collected since preparation of the draft EIR/EIS/EIS regarding the fen and the overall vegetation structure in and adjacent to the study area, additional surveys, including a detailed mapping effort of the fen, were conducted in 2010 by botanists from State Parks, California Native Plant Society, and the Tahoe Environmental Research Center. The results of these efforts have been included in this document in Chapter 5, "Corrections and Revisions to the 2010 Draft EIR/EIS/EIS." Specific changes to the draft EIR/EIS/EIS section include updated mapping, new habitat descriptions, and incorporation of the new baseline information into the impact analysis as necessary. The draft EIR/EIS/EIS previously had characterized the area containing the fen west of the Upper Truckee River as "spring complex." This area has been remapped and now includes the following categories: verified fen, unverified fen, and Lodgepole Pine Wet-Type forest for a more detailed survey. The verified fen was determined to have 40 centimeters (cm) (or greater) of organic soils in the upper 80 cm of the soil profile. Although the more detailed mapping efforts present additional details of habitat types, they do not change the significance conclusion presented in the draft EIR/EIS/EIS. For a complete description of the verification process and maps showing the location of the verified fen, which lies upslope and outside of the golf course relocation area, see the fen report included in Appendix M.

In addition to comments on the vegetation baseline, other comments expressed concern about impacts on the fen and springs. In particular, comments focused on impacts caused by the wetlands restoration associated with the old quarry. This restoration activity has been removed from the proposed Preferred Alternative; no other alternatives

proposed this project element. Removal of this design element alleviates concerns about potential impacts associated with this restoration action. Furthermore, golf course improvements would be located down-gradient from the fen and therefore would have no effect on them. No fens are located within the golf course footprint. As shown in Exhibit 3.5-1, presented in Chapter 5 of this document, fens are located up-gradient and outside of the golf course footprint. One spring feature would be surrounded by golf course with implementation of the proposed Preferred Alternative; however, no sensitive wildlife or plant species are known to occur in the area and natural vegetation buffers between the golf course and this spring would prevent impacts to this area if unidentified species were existing. Implementing Mitigation Measure 3.4-8 (Alt. 2) would prevent water quality degradation related to golf course operations by ensuring that irrigation and stormwater from the golf course would not interact with natural habitats (flows would be routed around landscaped areas), preventing groundwater interactions (subsurface barriers or other control methods would be installed where needed), and preventing percolation or surface overflow from golf course features. The spring feature that would be surrounded by golf course features under the proposed Preferred Alternative would have one green and three tee-boxes located upslope of this feature, and, following design requirements detailed in Mitigation Measure 3.4-8 (Alt. 2), these areas would be hydrologically separated from the spring, and no surface water or groundwater alterations to the spring would take place. Other impacts on sensitive habitats, including SEZs, riparian vegetation, wetlands, and the fen, are described in detail in the draft EIR/EIS/EIS with mitigation proposed as needed based on CEQA, NEPA, and TRPA significance criteria.

3.4 HYDROLOGY, FLOODING, GEOMORPHOLOGY, AND WATER QUALITY

3.4.1 FEN HYDROLOGY

This master response addresses comments on the draft EIR/EIS/EIS related to the impact analysis conducted for potential impacts of Alternative 2 on the hydrology of the fen and springs in the Washoe Meadows SP portion of the study area and that expressed concern that the mitigation identified was inadequate. This section of this master response addresses general comments made on the adequacy of the impact analysis for the fen and springs and responds to all or part of the following comments: AOB8-3, AOB9-3, AOB9-4, AOB11-3, AOB12-1, AOB13-1, AOB14-1, AOB24-4, AOB24-10, AOB30-2, AOB31-16, AOB31-25, I7-8, I64-21, I111-5, I111-6, I157-4, I157-15, I165-1, I192-6, I201-1, I209-1 PM1-14, PM2-41, PM2-42, PM2-64.

Commenters questioned the accuracy of the draft EIR/EIS/EIS analysis of the potential impact of Alternative 2 on hydrology of the fen and springs in the Washoe Meadows SP portion of the study area and expressed concern that the mitigation identified was inadequate. In addition to the information below, see Master Response Section 3.3, "Biological Resources" for additional information about the existing fen and potential biological impacts. To respond to comments fully, additional information regarding the fen has been collected since preparation of the draft EIR/EIS/EIS. A more precise classification and mapping has been performed and used to update the setting in Chapter 5, "Corrections and Revisions to the draft EIR/EIS/EIS," including Exhibit 3.5-1.

The level of detail in the setting sections of Section 3.3, "Hydrology and Flooding," and Section 3.4, "Geomorphology and Water Quality," of the draft EIR/EIS/EIS is general with respect to the surface water and groundwater features west of the river, but not incomplete. It was limited to the information available regarding the fen and springs. Additional information related to the spring complexes (including the fen) was presented in Section 3.5, "Biological Resources," in the draft EIR/EIS/EIS. The impact analyses did consider the presence, biologic functions, and potential erosion, sedimentation, flooding, and water quality effects of implementing Alternative 2 on the existing seeps, springs, and drainages west of the river.

The most important factor regarding potential impacts on the fen complex is that the proposed Preferred Alternative golf course layout is down-slope of the fen and has a 100-foot minimum buffer distance. Some commenters incorrectly indicated that the potential layout could encircle the fen, but the fen would be completely outside, upslope, and northwest of the proposed golf course relocation boundary under the proposed Preferred Alternative. Some commenters also incorrectly concluded that "logging" would be required upslope of or adjacent to the fen as part of implementation of Alternative 2, but this potential indirect effect on the hydrology or water

quality of the fen would not occur. Trees would be removed down-gradient of the fen. Some comments expressed concerned about potential impacts on the fen that could result from wetlands restoration at the old quarry. The restoration activity is no longer part of the proposed Preferred Alternative (the only proposed alternative that originally included it).

The fen at Washoe Meadows SP is classified as a sloping fen (also called soligeneous peatland), which is supported by groundwater typically at a discharge point that occurs as a result of a slope break or underlying geologic change (Appendix M). The groundwater source supporting the fen is up-gradient/upslope from the fen and from areas proposed for changes under Alternative 2. Modifications to surface hydrology and/or surface contours down-slope of the fen that would occur if the proposed Preferred Alternative were implemented could not adversely alter the fen hydrology. Additionally, the potential changes to soil moisture and shallow groundwater down-slope of the fen along the west margin of the proposed golf course under the proposed Preferred Alternative would likely have a neutral or net positive benefit on groundwater levels rather than any mechanism for an adverse impact on fen hydrology. Potential benefits to local soil moisture and shallow groundwater near the fen relative to existing conditions could result from several aspects of the proposed Preferred Alternative: raising of the riverbed east of the fen, improved soil moisture recharge and higher groundwater levels down-valley (to the northeast) because of river and floodplain restoration, and localized increases in soil moisture within the proposed managed landscape footprint that would be irrigated. These changes, although minor in magnitude, would all be in the direction of benefits to the fen groundwater conditions rather than adverse groundwater modifications. The proposed Preferred Alternative would not modify the "source" of groundwater to the fen, but it could beneficially reduce groundwater gradients or loss rates down-slope of the fen.

Commenters expressed concern about impacts on the spring "in the donut hole" of the Alternative 2 golf course layout. A portion of the potential golf course layout under the proposed Preferred Alternative would, although not surrounding the fen, surround a spring-fed drainage near the southwest corner of the proposed layout. The spring has a small upslope surface drainage and/or groundwater recharge area that could be affected by the golf course footprint disturbance and operations. The potential for direct hydrology and water quality effects on this spring and drainage related to construction and operation of the golf course under Alternative 2 was considered in the draft EIR/EIS/EIS in Section 3.3, "Hydrology and Flooding," and Section 3.4, "Geomorphology and Water Quality." Potentially significant adverse changes to surface runoff would be minimized by implementing Mitigation Measure 3.3-1 (Alt. 2). Potentially significant short-term adverse water quality effects would be minimized by implementing Mitigation Measure 3.4-6 (Alt. 2), including specific measures to protect groundwater seepage at springs west of the river from comingling with surface water. Potentially significant risks of water quality degradation from golf course operations would be minimized by implementing Mitigation Measure 3.4-8 (Alt. 2), including specific requirements to allow natural drainages to convey water without interaction with golf course stormwater and to prevent golf course irrigation water or stormwater from interacting with shallow groundwater in the vicinity of natural seeps in Washoe Meadows SP.

3.4.2 WATER DEMAND EFFECT ON UPPER TRUCKEE RIVER AND GROUNDWATER

Commenters expressed concern that the draft EIR/EIS/EIS did not adequately quantify the irrigation water demand of alternatives or evaluate the impacts of providing nonpotable water supply on the Upper Truckee River and local groundwater. This section of this master response addresses general comments made on the adequacy of the impact analysis for water demand effects on the Upper Truckee River and groundwater. It responds to all or part of the following comments: AOB12-1, AOB13-1, AOB14-1, AOB20-3, AOB21-1, AOB21-2, AOB21-3, AOB31-52, I4-9, I10-4, I13-1, I13-2, I13-3, I42-1, I66-2, I111-6, I120-1, I121-1.

The draft EIR/EIS/EIS includes setting information about water supply and use in Section 3.3, "Hydrology and Flooding" (pages 3.3-34 and 3.3-35), and identifies impacts related to long-term irrigation water demand (Impact 3.3-6) based on the location, area, type of turf, and the irrigation system features for each alternative. To further

clarify the existing conditions and provide quantification of impacts, additional information has been gathered and supplemental calculations have been made, as described below.

The following text replaces setting information on pages 3.3-34 and 3.3-35 of the draft EIR/EIS/EIS:

Historically, a riparian surface water diversion (DWR #S015849) located near RS 2200 has been the primary source of golf course irrigation water. Only the first nine holes were irrigated during the first 5 years after construction; however, the entire 18-hole course has been irrigated for the past 43 years (Stanowski, pers. comm., 2008). The existing golf course has 104 acres of intensively managed landscape areas (Table 3.3-4) and 23 acres of minimally managed landscape that receives irrigation more regularly than under the ideal definition because of the existing system conditions.

Table 3.3-4
Existing Irrigated Areas at Lake Tahoe Golf Course

Landscaped Area*	Total (acres)
Intensively managed	104
Minimally managed	23
Naturalized	7
Total	134

Note:
* Intensively managed areas include tees, greens, fairways, driving range, lawn, rough and 6 acres of facilities (buildings, parking lots, etc.). Minimally managed and naturalized areas are inadvertently over irrigated compared to their ideal management (as defined in Chapter 2) because of the existing irrigation system equipment.
Source: Data provided by State Parks in 2011

Channel conditions and shallow flow depths in the river have rendered surface water diversion difficult. During drought and/or some dry-season situations, a submersible pump is used to pull water from the Upper Truckee River during the day for temporary storage in the largest golf course pond (hole 9 pond) for irrigation distribution overnight (Stanowski, pers. comm., 2008). Nonpotable water use (i.e., water diverted from the Upper Truckee River) has been documented in recent years and provided to the State Water Resources Control Board (LTGC 2003, 2009). The maximum capacity of the existing submersible pump rate is 1,000 gallons per minute (gpm). Recent irrigation practices range from as early as 6 p.m. to as late as 10 a.m. (16 hours per day), which would equate to a maximum daily irrigation use of 960,000 gallons per day (approximately 2.95 acre-feet per day). Typical operations during high season (June/July) are reported (Stanowski, pers. comm., 2011) to be approximately 550,000 gallons per day, decreasing to half that amount in August, further dropping to 30% of that amount by the end of September and to less than 20% of the high season amount in October. The reported "typical" irrigation pattern represents a total annual water use of 194.0 acre-feet. The annual and monthly estimates (Stanowski, pers. comm. 2011) are consistent with surface water diversions reported for operations during 2002, 2006, 2007, and 2008 to the State Water Resources Control Board (Table 3.3-5).

The irrigation system on the existing course is a combination of old pipes and lines that have been patched, repaired, and replaced as needed over the years (Stanowski, pers. comm., 2008). Irrigation lines within the front-nine greens have been repaired and replaced during the past decade; however, the remaining areas still have older lines with lower effectiveness and efficiency. Irrigation heads spray water a full 360 degrees with a 90-foot throw distance, making it difficult to target water application (Walck, pers. comm., 2009). Despite system deficiencies, modern irrigation control and soil moisture monitoring are performed to help conserve water on the course (Lake Tahoe Golf Course and Restaurant 2000).

Table 3.3-5
Surface Water Diversion (Acre-Feet) at Lake Tahoe Golf Course

Month	2002	2006	2007	2008
January	NA	NA	NA	NA
February	NA	NA	NA	NA
March	NA	NA	NA	NA
April	2.5	NA	NA	NA
May	18.0	9.1	5.7	5.3
June	60.0	29.4	10.0	10.2
July	34.0	45.1	55.3	57.6
August	39.0	52.8	46.0	47.8
September	29.0	32.4	48.0	46.0
October	13.0	18.6	1.8	1.6
November	0.5	3.4	NA	NA
December	NA	NA	NA	NA
Annual	196.0	190.8	166.8	168.5

Note:
NA = Not Applicable
Sources: Lake Tahoe Golf Course "Statement of Water Diversion and Use" (April 14, 2003) and "Supplemental Statement of Water Diversion and Use (May 18, 2009) submitted to the California State Water Resources Control Board.

American Golf has developed an alternative irrigation supply using a deep on-site well. The well was planned to increase flexibility and maximize capacity while reducing the need to draw from the river under low-flow conditions. The groundwater supply was tested in October 2008, and the well began operation during the 2009 irrigation season. Test yields of approximately 400 gpm have been typical, with a maximum of 600 gpm. The desired yield would be in the range of 450–500 gpm (Stanowski, pers. comm., 2008). The irrigation supply well was completed to a depth of 295 feet below ground surface and is slotted from 195 feet below ground surface to the base of the well (Bruce MacKay Pump & Well Service 2008). Coarse materials make up the shallow aquifer and are underlain by about 150 feet of gray silt above the slotted interval of the well. Based on the logged geologic characteristics and the slot/screened interval, the groundwater source accessed via the new deep well is disconnected from the shallow aquifer that directly interacts with the surface flow and underflow of the Upper Truckee River.

To provide clarification to the impact analysis in the draft EIR/EIS/EIS in Section 3.3, "Hydrology and Flooding," water demand has been quantified and estimated irrigation water needs for all alternatives has been performed using standard climatic water budget accounting methods (webWIMP) (Matsura et al. 2009), site-specific soil information, and vegetation/turf areas for the alternatives.

Based on the physical characteristics provided by the NRCS (2007), the water-holding capacity of each soil series in the study area was calculated (Appendix N-1). Each soil map unit present in the study area (see draft EIR/EIS/EIS Section 3.6, "Earth Resources," for soil types) is assigned a water-holding capacity that reflects the proportion of map unit area occupied by each soil series (Appendix N-2). Monthly climatic water budgets for the study area's latitude, longitude, elevation range, historic temperature, precipitation, and soil water-holding capacities were calculated using an online modeling tool (WebWIMP) from the University of Delaware (Appendix N-3). The climatic water budget results provide a monthly "water deficit" that is the difference between potential evapotranspiration and actual evapotranspiration (which is limited by available moisture from precipitation, snow storage, and soil moisture storage). The water deficit is theoretically the irrigation water needed assuming 100% efficient delivery of the irrigation water. Actual irrigation efficiencies are less than 100%

because collection, distribution, and application systems are imperfect (Howell 2003:468). The lower the irrigation efficiency, the greater the total applied water need above the calculated deficit (Appendix N-4).

For the existing and estimated future conditions under Alternative 1, the acreage of intensively managed landscape, the soil types that have irrigated turf, and the irrigation infrastructure would not be modified. Under Alternative 1, all 98 acres of irrigated landscaping would remain on soil map unit 7431 (Celio loamy coarse sand, 0–5%). The monthly water budget deficit and applied water need (Table 3-4) would be similar to the present deficit and need (see the column showing 60% efficiency because the quality of the present irrigation system is poor). These calculations are consistent with the reported water use (approximately 166–196 acre-feet per year) and indicate that the water budget model is representative of the site conditions.

Table 3-4
Alternative 1 Water Demand (Acre-Feet) for 98 Acres of Intensively Managed/ Irrigated Golf Course

Month	Calculated Water Demand		
	Water Budget Deficit	Applied Water Need	
		80% Efficiency*	60% Efficiency*
January	NA	NA	NA
February	NA	NA	NA
March	NA	NA	NA
April	NA	NA	NA
May	3.4	4.3	5.7
June	20.1	25.2	33.6
July	36.9	46.1	61.4
August	33.8	42.2	56.3
September	22.5	28.1	37.5
October	6.8	8.5	11.4
November	NA	NA	NA
December	NA	NA	NA
Annual	123.5	154.4	205.9

Notes:
* Irrigation Efficiency is the ration of water needed to satisfy evaporative demands relative to total water applied.
NA = Not Applicable
Source: Data provided by Valley & Mountain Consulting in 2011

Soil conditions and irrigation infrastructure efficiency considerations would be the same under Alternative 4 as under Alternative 1. Irrigation demand under Alternative 4 would be slightly less than under Alternative 1 because Alternative 4 has a slightly smaller irrigated area (95 acres), which would result in a modest reduction in annual applied water need (approximately 201.9 acre-feet, assuming 60% efficiency).

For the estimated future conditions under Alternative 2 or the proposed Preferred Alternative, the acreage of intensively managed landscape would decrease, the soil types with irrigated turf would differ, and the irrigation infrastructure would be improved compared with Alternative 1. Under the proposed Preferred Alternative, 40 acres of irrigated landscaping would be located on soil map unit 7431 (Celio loamy coarse sand, 0–5%), 22.5 acres would be located on soil map unit 7042 (Tahoe gravelly), and 22.5 acres would be located on soil map unit

7482 (Meeks, stony). The monthly water budget deficit and applied water need (Table 3-5) would be less than under existing conditions because of the higher soil moisture holding capacities of the Tahoe and Meeks soil map units and the decreased acreage irrigated. In addition, even more water savings would be expected based on improved efficiency (closer to approximately 80% rather than the existing 60%).

Table 3-5
Proposed Preferred Alternative Water Demand (Acre-Feet) for 85 Acres of Intensively Managed/Irrigated Golf Course

	Calculated Water Demand		
		Applied Water Need	
Month	Water Budget Deficit	80% Efficiency*	60% Efficiency*
January	NA	NA	NA
February	NA	NA	NA
March	NA	NA	NA
April	NA	NA	NA
May	2.1	2.6	3.5
June	14.9	18.6	24.8
July	29.9	37.3	49.8
August	28.5	35.6	47.5
September	19.3	24.2	32.2
October	5.8	7.3	9.7
November	NA	NA	NA
December	NA	NA	NA
Annual	100.5	125.6	167.5

Notes:
* Irrigation Efficiency is the ration of water needed to satisfy evaporative demands relative to total water applied.
NA = Not Applicable
Source: Data provided by Valley & Mountain Consulting in 2011

For the estimated future conditions under Alternative 3, the acreage of intensively managed landscape would further decrease and the irrigation infrastructure would be improved compared with Alternative 1, but the soil types with irrigated turf would be the same as present. Under Alternative 3, all 45 acres of irrigated landscaping would be located on soil map unit 7431 (Celio loamy coarse sand, 0–5%). The monthly water budget deficit and applied water need (Table 3-6) would be less than under existing conditions because the amount of acreage irrigated would be decreased and even more water savings would be expected from improved efficiency (closer to approximately 80% rather than the existing 60%).

The detailed water budget analysis for the existing and proposed conditions under the alternatives presented above has additional quantitative information from that presented in the draft EIR/EIS/EIS. The additional information does not alter the conclusions regarding Impact 3.3-6 in terms of direction or the relative magnitude of impact, significance level, or need for mitigation for any of the alternatives.

Commenters were concerned that water supply diversion from the river under low-flow conditions could be harmful to aquatic resources and would be worsened under Alternative 2. However, the draft EIR/EIS/EIS accurately concluded that the baseline conditions have not exceeded any legal maximum rate; the new deep groundwater well helps to reduce surface diversion demands; and implementing Alternative 2, 3, or 5 would reduce future water demand. First, the monthly amounts of surface diversions in recent years, as reported to the State Water Resources Control Board (see Table 3.3-5), are consistent with the water rights on file, which lists no maximum diversion rate or any instream flow minimum to meet (SWRCB 2011). Second, the groundwater well

Table 3-6
Alternative 3 Water Demand (Acre-Feet) for 45 Acres of Intensively Managed/Irrigated Golf Course

	Calculated Water Demand		
		Applied Water Need	
Month	Water Budget Deficit	80% Efficiency*	60% Efficiency*
January	NA	NA	NA
February	NA	NA	NA
March	NA	NA	NA
April	NA	NA	NA
May	1.7	2.1	2.8
June	9.9	12.3	16.5
July	18.1	22.6	30.1
August	16.6	20.7	27.6
September	11.0	13.8	18.4
October	3.3	4.2	5.6
November	NA	NA	NA
December	NA	NA	NA
Annual	60.6	75.7	101.0

Notes:
* Irrigation Efficiency is the ration of water needed to satisfy evaporative demands relative to total water applied.
NA = Not Applicable
Source: Data provided by Valley & Mountain Consulting in 2011

installed in 2008 draws from materials at depths that are isolated from the surface sands and gravels by thick silt deposits (Bruce MacKay Pump & Well Service 2008) and are not freely connected to the surface aquifer that is directly linked to the river. A goal of the groundwater well was to provide an option for obtaining irrigation water with less river diversion. Pumping from the deep groundwater supply well would not be expected to lower surface water in the river or shallow groundwater directly connected to the river. This benefit would be realized under Alternative 1 and the action alternatives. Finally, the water demands for all action alternatives would be less than those under existing conditions, as described in the draft EIR/EIS/EIS and further clarified in the preceding water budget analysis. The magnitude of reduced demand varies by alternative but is substantial and measureable for Alternatives 2, 3, and 5 (see Tables 3-4, 3-5, and 3-6). Based on these factors, increased water diversion impacts on the river and adverse groundwater lowering that could indirectly reduce river levels would not occur under any of the action alternatives.

3.4.3 MONITORING OF GOLF COURSE CHEMICAL USE

Commenters expressed concern that monitoring required as part of the golf course's compliance with water quality regulations has not been strict enough in the past and/or would not be strict enough in the future. Some commenters requested additional monitoring to better establish the baseline conditions; however, CEQA does not mandate the collection of specific new data; rather, it states that the setting and impact analysis shall be based on existing information. Section 3.4, "Geomorphology and Water Quality," of the draft EIR/EIS/EIS was based on all available information regarding site-specific and riverwide water quality conditions This section of this master response responds to all or part of the following comments: AOB31-27, AOB31-53, I4-6, I4-7, I4-8.

The commenters' criticisms of monitoring and reporting requirements imposed by the Lahontan Regional Water Quality Control Board (RWQCB) are noted. However, it is outside the purpose of the CEQA, NEPA, and TRPA environmental compliance processes to dictate permit conditions or enforcement by an outside entity. In Section 3.4, "Geomorphology and Water Quality," the draft EIR/EIS/EIS indicates that the Lahontan RWQCB would

update the waste discharge permit for Alternatives 2 and 3 (pages 3.4-57 and 3.4-63), presumably strengthening the monitoring and reporting requirements. State Parks and its concessionaires would work with the Lahontan RWQCB to update and implement any new waste discharge permit requirements for the final design and operations plan.

The strengthening of regulatory requirements assumed in the draft EIR/EIS/EIS is verified by the Lahontan RWQCB in its comment letter (see comment AOB11-4), which states that operational requirements for the relocated golf course imposed by the Lahontan RWQCB would be consistent with other new golf course construction and operation requirements that require extensive surface water and groundwater monitoring and detailed irrigation and fertilizer management.

3.4.4 POTENTIAL FOR GOLF COURSE CHEMICALS TO ENTER GROUNDWATER OR SURFACE WATER

Commenters raised concerns about water quality impacts related to golf course use of herbicides, fertilizers, and pesticides. Commenters requested nutrient-loading estimates for each alternative. Quantitative loading estimates are not needed to evaluate whether a significance threshold would be reached or whether a significant effect relative to baseline would occur because an assessment can be made based on existing water quality data, known and proposed BMPs, and irrigation information discussed above. Additionally, the potential effects of the alternatives can be compared and ranked without collecting or generating new data. This section of this master response responds to all or part of the following comments: AOB8-7, AOB8-10, AOB8-19, AOB20-1, AOB21-3, AOB24-4, AOB24-7, AOB30-5, AOB31-27, AOB31-30, AOB31-47, AOB31-48, AOB31-40, AOB31-56, AOB32-9, I1-1, I4-1, I4-2, I4-3, I4-5, I10-1, I20-1, I120-1, I122-1, I126-1, I148-4, I158-1, I188-2, I192-6, I197-1, I203-1, I212-1, I216-1, PM1-14, PM1-43, PM1-21.

The draft EIR/EIS/EIS includes a discussion of fertilizer (and pesticide) practices under existing conditions (which are those for Alternative 1 and 4). For clarification, additional information obtained from the Lake Tahoe Golf Course (Stanowski pers. comm. 2011) has been used to clarify and update information in the draft EIR/EIS/EIS. The following text replaces the fourth paragraph on page 3.4-30:

> Fertilizer use at the Lake Tahoe Golf Course is minimal and typically occurs between May and October. The applications start after the soil temperature reaches 55ºF. They continue through the irrigation season (on greens and tees, to a lesser degree the fairways). Most fertilizers used are slow release. Use of slow-release fertilizer minimizes the amount of fertilizer free in the soil that could be leached. Fertilizers used on-site that are not slow release either are applied as spoon fed on greens only (on approximately 2 acres) or are applied in a manner that approximates a slow-release feeding in that they are applied in such small quantities (per acre) that they do not overwhelm the soil's ability to hold and then release them to the plant to match growth rates. Nitrates and soil are both negatively charged, which prevents the soil from holding on to excess nitrate. Whatever nitrate is not used by the plants could be lost to the groundwater; therefore, nitrates applied at the golf course are minimal and only included where they are secondary ingredient of other products (for example, calcium products). Fertilizer use is focused on fairways, tees, and greens, and not within the rough or 'minimally managed' areas. Herbicides are used only in spot treatments and pesticide use is also very minimal. Fungicide is used on the putting greens once each fall. Buffer zones are located along some fairways adjacent to creeks and ponds. However, some fairways located adjacent to the river currently have no buffer. Buffer areas between golf course turf and the river would generally increase under the proposed Preferred Alternative (See response to comment AOB8-7). Herbicides are used only in spot treatments, and pesticide use is also minimal. Fungicide is used on the putting greens once each fall. The monthly amount of chemical use per unit area (per acre or per 1,000 square feet) is reported to the Lahontan RWQCB each year. No recorded violations of permit conditions or water quality standards have been documented.

The draft EIR/EIS/EIS describes the anticipated changes in fertilizer (and pesticide) practices under Alternatives 2 and 3 in the discussion of Impact 3.4-8 (pages 3.4-57, 3.4-58, and 3.4-63). The impact analysis considers the reduced footprint, decreased water demand for irrigation, and improved irrigation infrastructure as factors that indicate that chemical use would be similar to, or less than, that under existing conditions. No changes in the seasonal application schedule or general types of chemicals needed would occur under the proposed Preferred Alternative or Alternative 3. The additional quantification of water budget and irrigation demand provided in the response above further supports the conclusions of the impact analysis in the draft EIR/EIS/EIS. The impact analysis concludes that a potentially significant impact could occur under the proposed Preferred Alternative, despite other regulatory requirements that would be imposed. Mitigation Measure 3.4-8 (Alt. 2) is identified to modify the final design for the stormwater and irrigation runoff system to minimize risks of sediment and chemical pollutant discharges.

The need for an updated golf course chemical management plan under Alternatives 2 and 3 is acknowledged in the draft EIR/EIS/EIS, along with an assumed strengthening of regulatory requirements. This assumption is verified by the Lahontan RWQCB in its comment letter (see comment AOB11-4), which states that operational requirements for the relocated golf course imposed by the Lahontan RWQCB would be consistent with other new golf course construction and operation requirements that require extensive surface water and groundwater monitoring, as well as detailed irrigation and fertilizer management. State Parks and its concessionaire would work with Lahontan RWQCB to update and implement any new waste discharge permit requirements for the final design and operations plan.

3.5 RECREATION

3.5.1 RECREATION ACCESS

This master response addresses comments on the draft EIR/EIS/EIS related to recreation access in the study area. Comments specifically addressed reductions in access for recreational users throughout the study area related to an expanded golf course under Alternative 2. This section of this master response addresses general comments made related to recreation access in the study area and responds to all or part of the following comments: AOB4-1, AOB12-1, AOB13-1, AOB14-1, AOB24-4, AOB24-6, AOB30-2, AOB31-21, I1-2, I4-1, I6-2, I13-6, I38-2, I52-1, I53-1, I75-1, I75-2, I82-1, I148-2, I157-7, I159-1, I153-1, I60-1, I91-3, I192-3, I196-1, I201-1, I203-1, I209-1, I209-2, I216-1, I238-4, I238-10, PM1-14.

As stated in Section 3.8, “Recreation,” of the draft EIR/EIS/EIS, under Alternative 2, access to portions of Washoe Meadows SP would be reduced; however, a new designated trail system compliant, where conditions allow, with the current Americans with Disabilities Act would be constructed to tie the informal dispersed recreation trails on the west side of the river across the bridge and into new trails on the east side of the river. The same conclusions would apply to the proposed Preferred Alternative. The new bridge would provide enough room for two-way golf cart traffic and pedestrian use. In addition, although the proposed Preferred Alternative would not involve replacing the entire length of informal trails that would be removed, the 1.4 miles of new designated trails would be maintained and would provide better connectivity through the study area than the existing user-created trails.

The new trail on the southeast side of the river would traverse the restored SEZ area and connect to the new Sawmill Bike Trail along U.S. 50. Parking would continue to be allowed at the golf course clubhouse parking lot for other recreation uses. A new trail would also connect the new golf course/pedestrian bridge to the corner at Country Club Drive. As part of the interim management plan, State Parks plans to include parking and trailhead signs at this location. In addition, the restored reach of the river that is currently in Lake Valley SRA has not been accessible to recreationists outside of golf course use during the golfing season for safety reasons. This area would be open for recreation access under the proposed Preferred Alternative. Approximately 4,500 feet of river would be open to public use that was previously in the golf course footprint and not open to the public. Although under the proposed Preferred Alternative, portions of the river in Washoe Meadows SP would be located adjacent

to the golf course, between 75 and 100 feet of buffer would be maintained between the golf course and river. In addition, a 200-foot forested buffer would be maintained between the golf course and existing houses in the North Upper Truckee neighborhood.

3.5.2 RECREATION SAFETY

This master response addresses comments on the draft EIR/EIS/EIS related to recreation safety. Comments specifically addressed potential safety concerns related to dispersed recreation and golf being in proximity to each other under Alternative 2. This section of this master response addresses general comments made on recreation safety and responds to all or part of the following comments: I6-6, I6-7, I148-2, I159-1.

As stated in *Trails and Golf Courses: Best Practices on Design and Management* (Alta Planning & Design 2005), trails and golf courses coexist around the country with few reported problems. Case studies reviewed by Alta Planning & Design (2005) indicate that properly designed and managed golf course trails offer a reasonable level of safety and security.

Best management practices for safety have been incorporated into the design for the Upper Truckee River Restoration and Golf Course Reconfiguration Project. They include pedestrian safe zones that would be designated where public pedestrian paths cross or become incorporated into golf course play (Exhibit 2-3). As the draft golf course design indicates, this would occur between holes 7/8 and 12/13 and where the golf course crosses the river at holes 6 and 14. The pedestrian safe zone at the hole 7/8 and 12/13 break is designed to be perpendicular to the golf course to maximize visibility and public safety. A 150-foot buffer is incorporated into the safe zone and would be located between a green and a tee box so that the public would not cross the line of play. The buffer would be screened by existing and planted vegetation where visibility is not necessary for safety. Before pedestrians using the designated paths enter into golf course areas, signs would warn them of potential golfing hazards, and markers would be installed where public trails cross cart paths to direct users. Pedestrians would have the right-of-way in all situations, and yield signs would be installed along cart paths at public access crossings.

Holes 6 and 14, which would parallel the bridge, are designed so that the shot line angles away from the bridge. The bridge area would also be signed and screened as described above. Holes 8, 9, and 13 would parallel the STPUD access road. Along this corridor, shot lines are angled away from the road and would have a minimum 50-foot buffer between the edge of the turf/rough and the road. This buffer would be screened by existing and planted vegetation.

The design features included in the proposed Preferred Alternative would adequately protect the safety of trail users, so no significant safety impact would occur.

3.5.3 SIGNIFICANCE OF RECREATION IMPACTS

This master response addresses comments on the draft EIR/EIS/EIS related to the level of significance of impacts on dispersed recreation. Comments specifically addressed fragmentation of Washoe Meadows SP, loss of trails, and consistency with TRPA recreation goals under Alternative 2. Commenters disagreed with impact conclusions related to dispersed recreation in the draft EIR/EIS/EIS. This section of this master response addresses general comments made on the significance of impacts on dispersed recreation in the draft EIR/EIS/EIS and responds to all or part of the following comments: AOB24-4, AOB30-2, I38-2, I38-3, I64-10, I165-4, I75-1, I153-1, I192-3, I196-1, I209-1, I209-2, I226-3, I238-3, PM1-14.

As described in Section 3.8, “Recreation,” of the draft EIR/EIS/EIS, approximately 1.4 miles of new designated trails would be created as part of Alternative 2, which would be the same as for the proposed Preferred Alternative (Exhibit 2-4). The proposed Preferred Alternative would not involve replacing the entire length of informal user-created trails that would be removed; however, the new designated trails would be maintained and would provide

better connectivity through the study area than the existing trails. Therefore, the new trails would be of higher quality than the user-created trails that would be removed and would maintain similar recreation opportunities. The proposed recreation trail would share the new bridge with the golf cart path and would then diverge into separate paths on both sides of the river. Therefore, motorized access would be allowed only along a short distance of new trail and across the new bridge. Motorized traffic would not be allowed on other pedestrian trails outside of those areas used for STPUD utility access.

The new portion of the reconfigured golf course would remove 40 acres of Washoe Meadows SP from other recreational uses; however, Washoe Meadows SP currently encompasses 608 acres (including areas outside the study area), and dispersed recreation would continue throughout the reconfigured 568 acres of Washoe Meadows SP. This includes approximately 40 acres that were previously occupied by golf course, including approximately 4,500 feet of river, would become available to trail users, boaters, anglers, and other water recreationists. Non-motorized winter recreationists would continue to have access to areas outside of the driving range, and access to this area would be improved because the bridge would no longer be gated. Snowmobile use would continue to be allowed only on the driving range. The northern portion of Washoe Meadows SP would continue to provide opportunities for dispersed recreation in solitude.

As discussed in Table 3.2-1, "Consistency with Relevant Land Use Plans and Policies," of the EIR/EIS/EIS, implementing any of the alternatives would provide for low-density recreation in the study area and along the Upper Truckee River. The northern portion of Washoe Meadows SP would remain undeveloped, and dispersed recreation would continue in Washoe Meadows SP under all alternatives. Additional access to the river would be available under Alternatives 2, 3, and 5 as portions of the golf course would be removed and the restored area open to other recreation uses. The proposed Preferred Alternative would include construction of additional trails that would connect to the Sawmill Bike Trail and the corner of Country Club Drive. For these reasons, the proposed Preferred Alternative would be consistent with TRPA goals for dispersed recreation. In addition, as discussed in Table 3.2-1, TRPA has goals and policies related to various resource areas that are all considered during review of any project. Consistency with goals and policies is considered equally for all resource topics, and consistency with one goal or policy (e.g., dispersed recreation) is not valued more highly than consistency with any other goal or policy (e.g., developed recreation, water quality).

3.6 CULTURAL RESOURCES

3.6.1 BASELINE CONDITIONS AND FINDINGS USED IN THE ENVIRONMENTAL ANALYSIS

This master response addresses general comments made on the adequacy, accuracy, and completeness of baseline conditions, mitigations measures, and findings used for significance conclusions in the draft EIR/EIS/EIS and responds to all or part of the following comments: AOB8-9, AOB12-1, AOB13-1, AOB14-1, AOB32-1 through AOB32-6, AOB32-8, AOB33-1, AOB33-2, AOB33-4, AOB33-5, I20-1, I54-4, I64-33, I165-3, I238-3, PM1-19, PM2-62.

As discussed in Section 3.9, "Cultural Resources," of the draft EIR/EIS/EIS, cultural resource investigations for the project consisted of a phased approach that included Native American consultation, prefield research, field reconnaissance surveys, and resource documentation. All aspects of the 2008 cultural resource study were conducted in accordance with the Secretary of the Interior's Guidelines for Identification of Cultural Resources (48 Code of Federal Regulations [CFR] 44720–44723).

The analysis was based on a combination of background research, archaeological pedestrian surveys, site investigations, and consultation with the Native American community. Research into potential cultural resources issues began with contacts made with the Washoe Tribe of Nevada and California by State Parks in 2006 for National Register of Historic Places (NRHP) evaluation excavations proposed for archaeological sites CA-Eld-2152, CA-Eld-2157, CA-Eld-2158, and CA-Eld-2160. These sites are contained in portions of the study area and could have been affected by proposed river restoration activities and golf course reconfiguration. Further

consultation with the Washoe Tribe occurred in 2007, also in relation to NRHP evaluation studies (CA-Eld-2156 and CA-Eld-2159).

AECOM cultural resources specialists contacted the Washoe Tribe directly in 2007, and coordination with State Parks is ongoing and will continue through final design. Most importantly, the tribal historic preservation officer for the Washoe Tribe, Mr. Darrel Cruz, has been involved in the planning process and the identification of mitigation for potential impacts on important early Native American cultural resources situated in and in the immediate vicinity of the study area.

AECOM cultural resource specialists, in coordination with State Parks and the U.S. Forest Service Lake Tahoe Basin Management Unit, reviewed archaeological site records and other documents related to all presently documented cultural sites, features, and artifacts located in and near the study area. Although conventional records searches in California are typically conducted through the California Historical Resources Information System (CHRIS), in this case State Parks and the Lake Tahoe Basin Management Unit maintained more extensive and detailed archives for the project site and the overall study area than the CHRIS. In addition, State Parks archaeologist Denise Jaffke has been in regular contact with the Washoe Tribe regarding cultural resources and culturally sensitive locales on and near the project site. This ongoing contact has provided information on ethnographic and recent historic-era Washoe Tribe use of the study area and the surrounding region.

Archaeological surface surveys and subsurface investigations have been conducted in the entire study area Among these investigations are reconnaissance-level surveys performed by AECOM and State Parks and an intensive cultural resources inventory conducted by Pacific Legacy in the Washoe Meadows SP. Subsurface investigations included the NRHP evaluation reports on the sites noted above. Information derived from these investigations, archival research, and consultation with the Washoe Tribe has provided a highly detailed and up-to-date assessment of the nature and distribution of prehistoric and historic-era sites, features, and artifacts in and near the study area. All this effort was completed after the Lake Valley SRA General Plan was prepared. Therefore, information provided in the 2008 study and draft EIR/EIS/EIS supersedes information in the general plan.

Sites considered significant have been protected through mitigation planned as part of the project, including using buffers, capsulation, adjusting a portion of the proposed golf course boundary to avoid impacts and provide access, monitoring during construction, and maintaining access to some sites dependant on the needs of the Washoe Tribe. All proposed mitigation has been developed in consultation with the Washoe Tribe. Cultural sites are currently vandalized in the study area. Implementation of protection measures, such as use of buffers and capsulation, is expected to reduce the potential for vandalism of cultural sites. Furthermore, as described in Section 3.9, “Cultural Resources,” of the draft EIR/EIS/EIS, mitigation is proposed to alleviate potential impacts on as yet undiscovered resources and would be conducted in consultation with the Washoe Tribe. Implementation of Mitigation Measure 3.9-2 would protect potential undiscovered resources by identifying previously undocumented cultural resources before their destruction and providing an opportunity for their preservation in place or for further investigation and the recovery of potential important scientific data that could be used to address regional prehistoric and historic-era research issues.

In addition to ongoing consultation with the Washoe Tribe, Reclamation has consulted with the SHPO in accordance with Section 106 of the National Historic Preservation Act. After review of the project, SHPO made the following findings:

- The determination of the Area of Potential Effect (APE) is appropriate pursuant to 36 CFR Parts 800.4(a)(1) and 800.16(c), and the effort to identify and evaluate historic properties in the APE represents a reasonable and good-faith effort in accordance with 36 CFR Part 800.4(b)(1).

- The finding of No Adverse Effect is appropriate pursuant to 36 CFR Part 800.5(b). The concurrence with this finding is predicated on the establishment of monitoring of an Environmentally Sensitive Area with exclusionary fencing around CA-Eld-555; the installation of protective caps (permeable fabric covered by 6 inches of sterile fill and topped with 6 feet of fill material from the golf course redesign) on the deposits of

CA-Eld-2158, CA-Eld-2160, and CA-Eld-2156; and the periodic (annual) monitoring of the effectiveness of these measures.

Implementation of mitigation measures described in Section 3.9, "Cultural Resources," of the draft EIR/EIS/EIS would protect cultural resources in the study area. Because cultural resources would be protected, all mitigation would be carried out in coordination with the Washoe Tribe. The SHPO has concurred with the finding that the project would have No Adverse Effect on cultural resources and that the project would be consistent with the Archeological Resources Protection Act of 1979 (Appendix L).

3.7 ECONOMICS

3.7.1 PROJECT FUNDING AND COST

This master response addresses comments on the draft EIR/EIS/EIS related to project funding and cost. Comments specifically addressed the sources of funding and requested an estimate of the cost of implementing the project. This section of this master response addresses general comments made related to project funding and cost and responds to all or part of the following comments: AOB5-1, AOB5-10, AOB31-35, AOB31-43, I1-2, I13-9, I18-1, I54-5, I64-20, I64-24, I67-1, I136-1, I149-1, I169-1, I170-2, I173-2, I228-1, I238-2 PM1-8, PM1-16, PM2-2, PM2-3, PM2-5,PM2-54, PM2-61.

State Parks has funding to complete the planning and permitting processes for the project. It will need to seek funding for restoration and implementation of the selected alternative. The cost of river and floodplain restoration would be approximately $6–8 million. Grant funding for river and SEZ restoration may be acquired through a variety of sources, such as the U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, and Lahontan RWQCB. The cost to relocate the golf holes under the proposed Preferred Alternative would be an additional $7–8 million. The golf course is operated by a concessionaire through a contract negotiated with State Parks. The current lease agreement has expired, and State Parks will be accepting bids for the next 20-year lease following finalization of this EIR/EIS/EIS. It is anticipated that much of the cost to relocate golf course holes would be paid for through this future agreement; however, State Parks would receive reduced income from the golf course for several years to offset these costs. State Parks would also consider a potential surcharge on golf fees of $5–10 to offset some of the costs of relocating golf course holes if the proposed Preferred Alternative is selected.

Funds generated by the Lake Tahoe Golf Course contribute to the State Parks Revolving Fund. The budget for the Sierra District is determined based on contributions to the revolving fund and, therefore, is affected by revenue generated by the Lake Tahoe Golf Course. Revenue generated by the Sierra District covers only approximately 30% of the local operating costs; therefore, State funds are shifted from elsewhere in the State Parks budget to cover a portion of the operating costs in the district. If less revenue is earned in the Sierra District because the golf course is closed or offers reduced play, funds would need to be redistributed from other areas of the State Parks budget to cover operating costs, or maintenance and services in the Sierra District would be reduced.

If the golf course concessionaire cannot cover the costs associated with relocating golf course holes because of the current economic downturn, State Parks would consider delaying relocation of golf course holes and approving a year-to-year contract with the concessionaire. After the economy improves and funding is available, a new contract with the concessionaire could be negotiated that would provide funds for relocating golf course holes.

3.7.2 ADEQUACY OF ECONOMIC REPORT

This master response addresses comments on the draft EIR/EIS/EIS related to the adequacy of the economic analysis report prepared for the project. Comments specifically addressed the scope and methods of the economic analysis. This section of this master response addresses general comments made on the adequacy of the economics analysis report prepared for the project and responds to all or part of the following comments: AOB4-4, AOB8-18,

AOB24-5, AOB30-6, AOB31-33, AOB31-34, AOB31-36 through AOB31-46, I3-1, I64-20, I64-23, I64-27, I64-31, I67-1, I111-6, , I111-7, I111-8, I139-1, I157-5, I176-1, I209-1, PM1-14, PM2-2, PM2-36, PM2-64.

Effects analyzed under CEQA must be related to a physical change in the environment (State CEQA Guidelines Code of California Regulations Section 15358[b]). Economic and social effects are not considered environmental effects under CEQA. These effects need to be considered in an EIR only if they would lead to a significant adverse effect on the physical environment. In addition, neither the TRPA Compact nor the Code of Ordinances requires consideration of economic effects in an EIS. NEPA does require consideration of economic effects (40 CFR 1508.8); however, this requirement is limited to effects that are reasonably foreseeable rather than speculative (Mandelker 2007: 8-102, citing City of Riverview v. Surface Transp. Bd., 398 F 3d 434 [6th Cir. 2005]).

Although not required under CEQA or NEPA, in response to public requests, an economic analysis was prepared for the project to assist in evaluating the economic and socioeconomic effects of the project and to study the feasibility of continued operations at Lake Valley SRA both with and without a golf course, in light of the objectives of the alternatives. The economic analysis examined three scenarios for configuring the golf course:

- an 18-hole regulation golf facility (with two suboptions, one of which includes potential changes to course layout);
- a reduced-play-area (nontraditional length, such as a 9-hole or executive course) with all golf activities located on the east side of the river (this scenario is modeled with a range of potential green fees, resulting in a low to high range of financial projections); and
- no golf course, but retention of the clubhouse for an events facility.

This analysis addressed the revenue and operating expenditures of each scenario, as well as the changes in revenues to be received by State Parks, changes in revenues to be received by the concessionaire, and economic impacts on the surrounding community. The resulting report, the *Lake Tahoe Golf Course Economic Feasibility Analysis*, does not provide an exhaustive evaluation of all potential future uses and scenarios for the study area but provides a reasonable range of scenarios that allow for comparisons and informed decision making. As stated in the report, it should not be relied on as sole input for decision making. For this reason, State Parks has used the information provided in the report in combination with information provided in the draft EIR/EIS/EIS and other technical studies and other available information for the project to select the preferred alternative. Relevant economic, environmental, social, technological, and other considerations are all taken into account and balanced to the extent possible when selecting a preferred alternative.

Methods and assumptions used to prepare the *Lake Tahoe Golf Course Economic Feasibility Analysis* are supported by analysis provided in the economic report and are considered accepted methods for the type of economic analysis conducted for the project. Multiple methods and assumptions could be considered acceptable when evaluating economic impacts. Commenters disagreed with methods and assumptions used in the economic analysis; however, no alternative methods or assumptions were offered by commenters. Although more recent economic data may be available, the economic analysis used the best available data at the time the report was prepared.

For these reasons, State Parks considers the economic analysis prepared for the project to be adequate for allowing informed decision making related to the project.

This page intentionally left blank.

4 COMMENTS AND INDIVIDUAL RESPONSES

4.1 INTRODUCTION

This chapter contains the comment letters received on the August 2010 draft environmental impact report/environmental impact statement/environmental impact statement (2010 draft EIR/EIS/EIS) for the Upper Truckee River Restoration and Golf Course Reconfiguration 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 hundreds of comments received and considered in the preparation of this final EIR/EIS/EIS. Each of the commenters on the 2010 draft EIR/EIS/EIS, their associated agencies or affiliations, and specific assigned letter/comment identifications are listed in Section 4.3. Section 4.4 presents each of the comment letters received on the 2010 draft EIR/EIS/EIS including three form letters signed by numerous individuals; comments made during the public hearings on the project held on October 13 and 27, 2010; and the responses to those comments.

4.2 FORMAT OF COMMENTS AND RESPONSES

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

- Section A: Agencies, Businesses, and Organizations
- Section B: Individuals
- Section C: Public Meeting
- Section D: Form Letters

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 2010 DRAFT EIR/EIS/EIS

Table 4-1 provides a list of all agencies and persons who submitted comments on the 2010 draft EIR/EIS/EIS and who commented on that document during the public hearing.

Table 4-1
List of Commenters on the 2010 Draft EIR/EIS/EIS

Letter ID	Commenter	Date
Section A. Agencies, Organizations, and Businesses		
AOB-1	BEAR League: Bear Education Aversion Response Ann Bryant and the BEAR League Board	November 13, 2010
AOB-2	California Trout Jenny Francis-Hatch, Northern Sierra Regional Director	October 27, 2010
AOB-3	City of South Lake Tahoe, Public Works Department, Engineering Division Jennifer Taylor, Assistant Engineer	November 10, 2010
AOB-4	Defense of Place Nancy Graalman, Director	November 15, 2010

Table 4-1 List of Commenters on the 2010 Draft EIR/EIS/EIS		
Letter ID	Commenter	Date
Section A. Agencies, Organizations, and Businesses (cont'd)		
AOB-5	U.S. Environmental Protection Agency, Region 9 Kathleen M. Gogorth, Manager, Environmental Review Office (CED-2), Communities and Ecosystems Division	November 1, 2010
AOB-6	Heavenly Mountain Resort Casey Blann, Vice President, Mountain Operations	October 26, 2010
AOB-7	Heavenly Mountain Resort Tom Fortune, Director, Mountain Operations	October 25, 2010
AOB-8	Kenyon-Yeates LLP Bill Yeates	November 15, 2010
AOB-9	Live Oak Associates, Inc. Rick A. Hopkins, Ph.D., Principal and Senior Conservation Biologist	November 12, 2010
AOB-10	Lake Tahoe Visitors Authority Mike Frye, Sales and Events Manager	October 26, 2010
AOB-11	California Regional Water Quality control Board, Lahontan Region Lauri Kemper, P.E., Assistant Executive Officer	November 15, 2010
AOB-12	Keep Tahoe Blue, League to Save Lake Tahoe Nicole Gergans, Environmental Program Advocate	October 6, 2010
AOB-13	Keep Tahoe Blue, League to Save Lake Tahoe Nicole Gergans, Environmental Program Advocate	October 26, 2010
AOB-14	Keep Tahoe Blue, League to Save Lake Tahoe Nicole Gergans, Environmental Program Advocate	November 15, 2010
AOB-15	Lake Tahoe Visitors Authority, South Shore Patrick Ronan, Chair	October 7, 2010
AOB-16	Lake Tahoe Visitors Authority, South Shore Mindi Befu, Chair – Lake Tahoe Visitors Authority Marketing Committee	October 29, 2010
AOB-17	Meyers Community Roundtable Committee Sue Novasel, Chair	October 6, 2010
AOB-18	Midkiff and Associates, Inc. Gary D. Midkiff, Principal	October 26, 2010
AOB-19	State of California Native American Heritage Commission Katy Sanchez, Program Analyst	September 2, 2010
AOB-20	State of Nevada Department of Conservation and Natural Resources, Division of Environmental Protection Jason Kuchnicki	November 4, 2010
AOB-21	Resource Renewal Institute David Katz, Project Manager	November 12, 2010
AOB-22	South Lake Tahoe Lodging Association and Tourism Improvement District Jerry Bindel, Chairman	October 29, 2010
AOB-23	Sierra-at-Tahoe and Northstar-at-Tahoe Resorts Kirstin A. Cattell, Marketing and Communications Manager	October 6, 2010

Table 4-1
List of Commenters on the 2010 Draft EIR/EIS/EIS

Letter ID	Commenter	Date
Section A. Agencies, Organizations, and Businesses (cont'd)		
AOB-24	Sierra Club, Tahoe Area and Mother Lode Chapter Bob Anderson, Executive Committee – Tahoe Area, Sierra Club and Terry Davis, Conservation Program Coordinator – Mother Lode Chapter, Sierra Club	November 15, 2010
AOB-25	South Tahoe Association of Realtors (STAR) Theresa Souers, 2010 President on behalf of STAR Board of Directors	November 4, 2010
AOB-26	Tahoe-Douglas Visitors Authority John Packer	September 27, 2010
AOB-27	Trout Unlimited David Lass, Northern California Field Director, Sportsman Conservation Project	November 7, 2010
AOB-28	Washoe Meadows Community Lynne Paulson	October 1, 2010
AOB-29	Washoe Meadows Community Lynne Paulson	October 8, 2010
AOB-30	Washoe Meadows Community Lynne Paulson	October 13, 2010
AOB-31	Washoe Meadows Community Lynne Paulson	November 15, 2010
AOB-32	Washoe Tribe of Nevada and California, Cultural Resources Office/Tribal Historic Preservation Office Darrel Cruz	September 14, 2010
AOB-33	Washoe Tribe of Nevada and California Waldo W. Walker, Chairman	November 11, 2010
Section B. Individuals		
I1	John Adamski	November 15, 2010
I2	Eric Adema	November 1, 2010
I3	Daniel Albanese	November 14, 2010
I4	Jenny Albanese	November 14, 2010
I5	Rick Alexander	October 27, 2010
I6	Rick Alexander	November 14, 2010
I7	David & Lori Allessio	October 23, 2010
I8	Richard Anderson	November 7, 2010
I9	Harold Anino	September 19, 2010
I10	Patricia Ardavany	September 27, 2010
I11	Patrick Atherton	November 7, 2010
I12	Rob Ayers	October 19, 2010
I13	Robert J. Baiocchi	November 15, 2010

Table 4-1 List of Commenters on the 2010 Draft EIR/EIS/EIS		
Letter ID	Commenter	Date
Section B. Individuals (cont'd)		
I14	Bob Barneson	September 4, 2010
I15	Fred Barry	November 4, 2010
I16	Andrew Bass	October 18, 2010
I17	Jeff Bell	September 4, 2010
I18	Stew & Hillary Bittman	November 1, 2010
I19	Stephen Blonski	October 12, 2010
I20	Debbie & John Bolce	November 7, 2010
I21	Laurie Brazil	September 30, 2010
I22	Mike Brink	October 24, 2010
I23	Sherie Brubaker	September 20, 2010
I24	Dave Burba	November 5, 2010
I25	Royal Bush	September 21, 2010
I26	Dave Carneggie	August 27, 2010
I27	Carol Carson	September 11, 2010
I28	Greg Case	August 31, 2010
I29	Greg Case	September 20, 2010
I30	John Castellanos	October 12, 2010
I31	Amy Cecchettini	November 1, 2010
I32	Carol Chaplin	October 4, 2010
I33	Barbara Childs	October 29, 2010
I34	J.P. Christensen	November 4, 2010
I35	Phyllis Clifton	October 6, 2010
I36	David Cloutier	October 30, 2010
I37	Doug Clymer	October 29, 2010
I38	Theresa Cody	November 15, 2010
I39	Larry Coffman	September 16, 2010
I40	Larry Coffman	October 12, 2010
I41	Barbara & Roger Copeland	September 22, 2010
I42	William G. Copren	November 14, 2010
I43	Jennifer Culp	September 5, 2010
I44	John Curtis	August 26, 2010
I45	John Curtis	September 22, 2010
I46	Tim Dallas	November 4, 2010

Table 4-1 List of Commenters on the 2010 Draft EIR/EIS/EIS		
Letter ID	Commenter	Date
Section B. Individuals (cont'd)		
I47	Carol Daum	September 22, 2010
I48	Greg Daum	October 18, 2010
I49	Jake Daum	October 18, 2010
I50	Dave Davis	August 31, 2010
I51	John Dayberry	August 30, 2010
I52	John Dayberry	November 15, 2010
I53	Tom & Debbie Deeble	November 14, 2010
I54	Hillary Dembroff	October 23, 2010
I55	Hillary Dembroff	November 3, 2010
I56	Dave DeStefano	October 22, 2010
I57	Richard DeVries	August 30, 2010
I58	Neil G. Dion	November 14, 2010
I59	Brad Dorton	October 30, 2010
I60	John Drum	October 22, 2010
I61	Kathleen Eagan	October 29, 2010
I62	Derek Edridge	October 5, 2010
I63	Don & Kay Edwards	October 22, 2010
I64	David & Carla Ennis	November 14, 2010
I65	Carl Fair	October 5, 2010
I66	Emilio Ferrer	November 15, 2010
I67	Chick Fraunfelter	October 28, 2010
I68	John Garofalos	October 18, 2010
I69	Jerry & Marcia Gaudet	November 2, 2010
I70	Jeff Glass	November 12, 2010
I71	John Gooding	September 11, 2010
I72	John Gooding	October 23, 2010
I73	John Gooding	November 5, 2010
I74	Kimberly Gorman	October 24, 2010
I75	Kimberly Gorman	November 15, 2010
I76	C.V. Griffith	November 3, 2010
I77	Greta Hambsch	November 14, 2010
I78	Diana Hamilton-Smith	November 15, 2010
I79	Patricia M. Handal, DVM	August 30, 2010

Table 4-1 List of Commenters on the 2010 Draft EIR/EIS/EIS		
Letter ID	Commenter	Date
Section B. Individuals (cont'd)		
I80	Judith Hanson, MBA	October 29, 2010
I81	Paul Hardy	November 15, 2010
I82	Angela Harney	November 15, 2010
I83	Teresa Harrigan	August 30, 2010
I84	Donald C. Harriman	November 12, 2010
I85	Roxene Harrison	September 17, 2010
I86	John Hartzell	September 4, 2010
I87	John Hartzell	October 23, 2010
I88	Douglas & Joan Hazlett	August 25, 2010
I89	Douglas Hazlett	September 8, 2010
I90	Douglas Hazlett	September 22, 2010
I91	Gunnar Henrioulle	September 11, 2010
I92	Ann Marie Henrioulle	October 22, 2010
I93	Alan Heyvaert, Ph.D.	November 3, 2010
I94	Larry & Gail Hobson	October 15, 2010
I95	Jon Hoefer	October 26, 2010
I96	Kirk Hopkin	October 18, 2010
I97	Kirk Hordin	November 3, 2010
I98	Rob Hordzwick	November 4, 2010
I99	Peter Illing	October 12, 2010
I100	Nicole M. Jane, DDS MS	October 22, 2010
I101	Daniel Jensen	November 11, 2010
I102	Curtis John	August 26, 2010
I103	Curtis John	September 22, 2010
I104	Georgene John	August 26, 2010
I105	Brian Johnson	October 18, 2010
I106	Michael K. Johnson	October 26, 2010
I107	katzino6	October 19, 2010
I108	Robert Kay	September 2, 2010
I109	Michelle Keck	October 29, 2010
I110	Greg Kennedy	November 6, 2010
I111	John Klimaszewski	November 14, 2010
I112	Mike Klover	August 25, 2010

Table 4-1 List of Commenters on the 2010 Draft EIR/EIS/EIS		
Letter ID	Commenter	Date
Section B. Individuals (cont'd)		
I113	Mike Klover	October 27, 2010
I114	Alfred Knotts	October 27, 2010
I115	Mark Koffman	October 1, 2010
I116	Norm Kosco	August 27, 2010
I117	Greg Kuntz	November 4, 2010
I118	Michelle Lam	October 21, 2010
I119	Keith Latta	August 27, 2010
I120	L.J. Laurent	September 8, 2010
I121	Denise LeBiavant	October 17, 2010
I122	Debbie Ledbetter	August 31, 2010
I123	Charles Lincoln	October 18, 2010
I124	Michael & Ileene Lipkin	October 23, 2010
I125	Wayne Logan	August 27, 2010
I126	Mary Magana	September 9, 2010
I127	Tom & Debbie Makris	November 8, 2010
I128	Jerry & Cathy Martin	October 27, 2010
I129	Richard Matera	September 8, 2010
I130	Matt	September 24, 2010
I131	Kyle Mazzoni	August 27, 2010
I132	Tim Mazzoni	August 24, 2010
I133	Tim Mazzoni	September 21, 2010
I134	Tim Mazzoni	October 18, 2010
I135	Richard McCallan, PE	November 8, 2010
I136	John McDougall	November 13, 2010
I137	George McKool	September 1, 2010
I138	Ken McNutt	October 5, 2010
I139	Gary Mendel	August 26, 2010
I140	Gary Mendel	August 27, 2010
I141	Gary Mendel	September 8, 2010
I142	Linda & Bob Mendizabal	October 22, 2010
I143	Terry A. Mitchell	November 1, 2010
I144	Gary Moore	October 6, 2010
I145	Linda Moore	October 12, 2010

Table 4-1 List of Commenters on the 2010 Draft EIR/EIS/EIS		
Letter ID	Commenter	Date
Section B. Individuals (cont'd)		
I146	Jim Morocco	September 3, 2010
I147	Larry Mortensen	September 1, 2010
I148	Sarah Muskopf	November 8, 2010
I149	Paul Nanzig	October 29, 2010
I150	Paul & Jenee Nanzig	October 4, 2010
I151	Aysin & Bruce Neville	August 30, 2010
I152	Michael O. Newberger	November 1, 2010
I153	Robert Nichols	November 4, 2010
I154	Bob Niedermeier	October 30, 2010
I155	S. Noll	October 7, 2010
I156	Annaleigh Novak	September 6, 2010
I157	Lisa O'Daly	no date
I158	Rachel Odneal	October 10, 2010
I159	Zachary Ormsby	November 15, 2010
I160	Rose & Jeff Ottman	September 21, 2010
I161	Julie Parker	November 8, 2010
I162	Vern & Mary Parker	September 5, 2010
I163	Mike Patterson	August 24, 2010
I164	Mike Patterson	October 13, 2010
I165	Lynne Paulson	November 15, 2010
I166	Gordon & Pamela Perry	September 30, 2010
I167	Glenn & Barbara Pershing	November 14, 2010
I168	Rob Peterson	October 29, 2010
I169	Beverly Pevarnick	November 2, 2010
I170	Dennis Pevarnick	October 21, 2010
I171	Maria A. Pielaet, MD	October 20, 2010
I172	Benjamin Pignatelli	September 3, 2010
I173	Benjamin Pignatelli	October 5, 2010
I174	Barbara Randolph	October 6, 2010
I175	David Reichel	November 10, 2010
I176	Ron C. Rettus	August 20, 2010
I177	Ron C. Rettus	August 24, 2010
I178	Steve Ricioli	September 9, 2010

Table 4-1 List of Commenters on the 2010 Draft EIR/EIS/EIS		
Letter ID	Commenter	Date
Section B. Individuals (cont'd)		
I179	JoAnn Robbins	November 15, 2010
I180	Mike Robinson	November 3, 2010
I181	Art Rodriguez	October 7, 2010
I182	Michael Rogan	October 13, 2010
I183	Patrick Ronan	October 19, 2010
I184	Cookie Rork	October 15, 2010
I185	Doug Rosner	October 29, 2010
I186	Doug Ross	September 22, 2010
I187	Doug Ross	November 4, 2010
I188	Heather Ross	November 2, 2010
I189	Ronald Rumble	November 4, 2010
I190	Caleb Russell	November 10, 2010
I191	Glenn Russell	November 12, 2010
I192	Krissi Russell	November 9, 2010
I193	Derek Rust	October 12, 2010
I194	James L. Ryan	October 18, 2010
I195	Dorothy Salant	September 19, 2010
I196	Dorothy Salant	November 3, 2010
I197	Jim Sanfelice	November 10, 2010
I198	David and Andi Sannazzaro	November 11, 2010
I199	John Sattler	September 22, 2010
I200	Natasha Kidman Schue	October 21, 2010
I201	Karenina Schuller	September 28, 2010
I202	Monica Sciuto	October 20, 2010
I203	Janet Seidman-Domas	September 2, 2010
I204	Coleen Shade	October 6, 2010
I205	Dick Shehadi	October 12, 2010
I206	Dick & Wendy Shehadi	September 5, 2010
I207	Lynda Shoshone	November 15, 2010
I208	Fritz Siegethaler	November 8, 2010
I209	Lisa Sinizer	November 14, 2010
I210	Carole Songey-Watson	October 4, 2010
I211	Ron Spurrell	August 25, 2010

Table 4-1 List of Commenters on the 2010 Draft EIR/EIS/EIS		
Letter ID	Commenter	Date
Section B. Individuals (cont'd)		
I212	Jim Stamates	November 9, 2010
I213	Kim Stephenson	November 3, 2010
I214	Robert Stiles	October 28, 2010
I215	Keri Strategier	October 30, 2010
I216	Martha Sullivan	September 4, 2010
I217	Steve Szekely	September 26, 2010
I218	Shirley Taylor	September 14, 2010
I219	Anne Thomas	November 15, 2010
I220	Kirk Thompson	September 1, 2010
I221	Kirk Thompson	October 20, 2010
I222	Maddelyn Thran	September 2, 2010
I223	Jane Turney	October 30, 2010
I224	John Upton	October 29, 2010
I225	userramp	August 24, 2010
I226	Scott Valentine	October 17, 2010
I227	Cindy Van Arnum	October 8, 2010
I228	Walter	September 8, 2010
I229	Steve Weiss	August 26, 2010
I230	Steve Weiss	September 27, 2010
I231	John S. Williamson	November 15, 2010
I232	Amber Wilson, MS RD	October 8, 2010
I233	Matt Wilson	October 7, 2010
I234	Judy Witte	October 31, 2010
I235	Russell Wright	September 9, 2010
I236	Natalie Yanish	October 29, 2010
I237	Steve Yonker	October 2, 2010
I238	Nicole Zaborsky	November 15, 2010
I239	Liana Zambresky	September 6, 2010
I240	Liana Zambresky	October 4, 2010
Form Letters		
F1	Glenn Affleck	October 24, 2010
	Clifford Aggen	October 18, 2010
	David Agles	October 18, 2010

Table 4-1 List of Commenters on the 2010 Draft EIR/EIS/EIS		
Letter ID	Commenter	Date
Form Letters	**(cont'd)**	
	Branden Allred	October 18, 2010
	Christopher Ames	October 23, 2010
	Russell Amos	October 18, 2010
	Glen Anderson	October 19, 2010
	Richard Anderson	October 18, 2010
	Stephen Anderson	November 2, 2010
	Zenjala Anderson	October 25, 2010
	John Arndt	October 27, 2010
	Allen Aronson	October 18, 2010
	Bruce Ashley	October 21, 2010
	Dale Atherton	October 20, 2010
	Ron Azevedo	October 19, 2010
	J. Baily	October 20, 2010
	Doug Ballinger	October 19, 2010
	Richard Banks	October 18, 2010
	Chris Barger	October 18, 2010
	John Barry	October 18, 2010
	Keith Barton	October 19, 2010
	Charles Batts	October 18, 2010
	Nicolas Bauer	October 18, 2010
	Jeanne-Marie Baxter	October 18, 2010
	Fred Bellero	October 28, 2010
	Vincent Berry	October 18, 2010
	Paul Bettelheim	October 18, 2010
	Dan Beveridge	October 27, 2010
	Alan Billotte	October 18, 2010
	Ray Binner	October 28, 2010
	John Black	October 18, 2010
	Torry Blickle	October 18, 2010
	Mike Bobbitt	October 18, 2010
	Lea Bond	October 19, 2010
	Robert Bonfilio	October 18, 2010
	Mike Bonifacio	October 19, 2010

Table 4-1 List of Commenters on the 2010 Draft EIR/EIS/EIS		
Letter ID	Commenter	Date
Form Letters	**(cont'd)**	
	Mark Borchert	October 18, 2010
	Jason Bowman	October 20, 2010
	Darrell Boyle	October 19, 2010
	Craig Bradshaw	October 24, 2010
	Holden Brink	October 24, 2010
	John Brinkley	October 18, 2010
	Robert Britton	October 18, 2010
	Tony Brookfield	October 19, 2010
	Gerald L. Brooks	October 18, 2010
	Gary Brugman	October 19, 2010
	Jed Burns	October 18, 2010
	Chuck Cadman	October 28, 2010
	Dennis Cakebread	October 18, 2010
	Michael Calkins	October 19, 2010
	Jack Campbell	October 18, 2010
	Michael Carlson	October 19, 2010
	Ken Carpenter	October 19, 2010
	Christopher Carolab	October 18, 2010
	Patrick Carroll	October 19, 2010
	Tom Carson	October 18, 2010
	Bruce Carter	October 20, 2010
	Larry Cebull	October 19, 2010
	Scott Cecchi	October 19, 2010
	Mark Cedarwall	October 24, 2010
	Morley Chandler	October 26, 2010
	Robert Chang	October 18, 2010
	Robert Christensen	October 19, 2010
	Alan Christian	October 19, 2010
	Jack Christianson	October 19, 2010
	Matthew Clark	October 18, 2010
	Neil Clipperton	October 18, 2010
	Kenneth Cochrane	October 18, 2010
	Doug Cole	October 19, 2010

Table 4-1 List of Commenters on the 2010 Draft EIR/EIS/EIS		
Letter ID	Commenter	Date
Form Letters	**(cont'd)**	
	Alan Colombano	October 19, 2010
	Chri Cordano	October 19, 2010
	George Coughlin	October 23, 2010
	Paul Crafts	October 18, 2010
	Paul Cress	October 18, 2010
	Chris Crofford	October 23, 2010
	Ash Daggs	October 19, 2010
	Scott Dansie	October 18, 2010
	Bruce Dau	October 18, 2010
	George De Kay	October 18, 2010
	Thomas Deetz	October 23, 2010
	Larry Dennis	October 19, 2010
	Richard Desrosiers	October 19, 2010
	Lim DeSwarte, Jr.	October 18, 2010
	Timothy Devine	October 23, 2010
	Sonia Dinger	October 20, 2010
	Dustan Dockter	October 18, 2010
	John Dolinsek	October 19, 2010
	Michael Dresen	October 18, 2010
	Thomas Driskill	October 18, 2010
	Adam Dwinells	October 19, 2010
	Daniel Eckard	October 18, 2010
	Kalman Edelman	October 18, 2010
	Harold Ekman	October 18, 2010
	Leonard Ely	October 19, 2010
	Ned Engle	October 19, 2010
	Philip Erickson	October 18, 2010
	Kent Estabrook	October 18, 2010
	Dinda Evans	October 20, 2010
	Vivian Fahlgren	October 18, 2010
	John Faivre	October 18, 2010
	Robert Fallon	October 19, 2010
	Teresa Fantasia	October 18, 2010

Table 4-1 List of Commenters on the 2010 Draft EIR/EIS/EIS		
Letter ID	Commenter	Date
Form Letters	**(cont'd)**	
	Devin Farrell	October 18, 2010
	Lawrence Ferderber	October 18, 2010
	Michael Ferguson	October 29, 2010
	John Ferrell	October 19, 2010
	Ed Filice	October 18, 2010
	Robert Fisher	October 19, 2010
	Pierce Flynn	October 18, 2010
	John Fowler	October 18, 2010
	Jonah Freedman	October 18, 2010
	Louis Fry	October 18, 2010
	Gene Gantt	October 20, 2010
	Filipe Garcia	November 1, 2010
	Dr. William Gardner	October 19, 2010
	John Garraway	October 18, 2010
	David Gates	October 19, 2010
	Doug Gayner	October 18, 2010
	Kenneth Giannotti	October 19, 2010
	Wayne Ginsburg	October 18, 2010
	David Goeddel	October 18, 2010
	Wade Goertz	October 18, 2010
	Alan Goggins	October 18, 2010
	Dayrl Goldstein	October 19, 2010
	Bob Gomez	October 18, 2010
	Wade Graham	October 19, 2010
	David Gray	October 18, 2010
	Don Griffiths	October 19, 2010
	James Grizzell	October 18, 2010
	Malcome Groome	October 19, 2010
	Alex Gutt	October 18, 2010
	Dennis Hall	October 18, 2010
	Robert Hall	October 21, 2010
	Charles Hammerstad	October 19, 2010
	James Hansell	October 27, 2010

Table 4-1
List of Commenters on the 2010 Draft EIR/EIS/EIS

Letter ID	Commenter	Date
Form Letters	**(cont'd)**	
	Richard Harvey	October 18, 2010
	Sarah Hatten	October 18, 2010
	Terrence Hayes	October 25, 2010
	George Hayford	October 18, 2010
	Terry Heffernan	October 18, 2010
	Mitch Hendrickson	October 31, 2010
	Ed Heneveld	October 19, 2010
	Jeff Henigan	October 18, 2010
	Scott Holtslander	October 18, 2010
	Kirk Hopkin	October 18, 2010
	Jim Horning	October 24, 2010
	John Hudson	October 19, 2010
	Sarah Hugdahl	October 19, 2010
	Timothy Hunt	October 18, 2010
	Libby Ingalls	October 25, 2010
	Jim Isaacson	October 18, 2010
	Richard Ishikawa	October 18, 2010
	Richard James	October 18, 2010
	Marty Jansen	October 19, 2010
	David Johnson	October 24, 2010
	Dennis Johnson	October 23, 2010
	Justin Johnson	October 18, 2010
	Paul Johnson	October 23, 2010
	Bob Johnston	October 18, 2010
	Greg Jones	October 19, 2010
	M. Jordan	October 19, 2010
	Darrell Kaff	October 20, 2010
	Michael Kalinowski	October 19, 2010
	Matthew Kane	October 18, 2010
	Kenneth Kanine	October 18, 2010
	Katherine Karriker-Jaffe	November 1, 2010
	Don Kennelly	October 18, 2010
	Larry Kenny	October 19, 2010

Table 4-1 List of Commenters on the 2010 Draft EIR/EIS/EIS		
Letter ID	Commenter	Date
Form Letters	**(cont'd)**	
	Ken Kerley	October 18, 2010
	Curt Kerrick	October 18, 2010
	Marc Kiefer	October 20, 2010
	Ron Kilbourne	October 19, 2010
	Amy Kileen	October 18, 2010
	Mark King	October 18, 2010
	William King	October 19, 2010
	Laurie Kirk	October 20, 2010
	Thomas Klein	October 18, 2010
	Peter Klosterman	October 20, 2010
	John Koene	October 18, 2010
	John Kolarik	October 18, 2010
	Jerry Krohn	October 19, 2010
	K. Krupinski	October 18, 2010
	Kevin Kuhn	October 18, 2010
	Kevin Kuhn	October 29, 2010
	Dean Kuvelis	October 18, 2010
	David Lahti	October 18, 2010
	Jimmy Lamb	October 18, 2010
	Deborah Lancman	October 18, 2010
	Robert Larson	October 19, 2010
	Tim LaVerne	October 18, 2010
	Edward Laveroni	October 24, 2010
	Candy LeBlanc	October 18, 2010
	Pam Levitus	October 19, 2010
	Walt Levitus	October 18, 2010
	Christopher Lima	October 19, 2010
	Gary Lipking	October 18, 2010
	David Lipscomb	October 18, 2010
	Colleen Lobel	October 18, 2010
	David Lonegran	November 3, 2010
	David Lonergan	October 26, 2010
	Gabriel Lopez	October 19, 2010

Table 4-1 List of Commenters on the 2010 Draft EIR/EIS/EIS		
Letter ID	Commenter	Date
Form Letters	**(cont'd)**	
	Rose Lord	October 18, 2010
	Jeff Lorelli	October 19, 2010
	Ray Lorenson	October 20, 2010
	David Lougee	October 19, 2010
	Richard Luczyski	October 19, 2010
	John Marcacci	October 30, 2010
	Joseph Marcotte	October 19, 2010
	Maurice Marcus	October 18, 2010
	Wayne Marion	October 18, 2010
	Allan Marshall	October 29, 2010
	Thomas Martin	October 18, 2010
	Grace Marvin	October 30, 2010
	Matt Mason	October 19, 2010
	Kirk Mathew	October 18, 2010
	Russell Mcburney	October 18, 2010
	Byron McCulley	October 18, 2010
	Frank McDowell	October 18, 2010
	Stu McFarland	October 18, 2010
	Steve McIntire	October 19, 2010
	Laurel McKeever	October 18, 2010
	Gwen McKenzie	October 18, 2010
	Michael McKibben	October 18, 2010
	Steve Mesa	October 19, 2010
	Timmothy Metz	October 18, 2010
	Clifford Meyer	October 19, 2010
	Peter Michaelides	October 19, 2010
	James Miller	October 25, 2010
	Jim Miller	October 18, 2010
	Larry Miller	October 19, 2010
	James Milligan	October 18, 2010
	Jim Molinari	October 20, 2010
	Mark Momberg	October 20, 2010
	Steve Monell	October 19, 2010

Table 4-1 List of Commenters on the 2010 Draft EIR/EIS/EIS		
Letter ID	Commenter	Date
Form Letters	**(cont'd)**	
	Gregory Moore	October 19, 2010
	David Morris	October 19, 2010
	John Morris	October 19, 2010
	Maynard Morvay	October 18, 2010
	Mark Moskowitz	October 19, 2010
	Paul Mouriski	October 19, 2010
	Colleen Muelchi	October 18, 2010
	Rex Murphy	October 18, 2010
	Jim Naughton	October 18, 2010
	Fred Naylor	October 19, 2010
	Stephen Neff	October 19, 2010
	Ron Neighbors	October 20, 2010
	Gregory Nelson	October 19, 2010
	James Nemechek	October 18, 2010
	Jim Newhoff	October 18, 2010
	R. Davin Norene	October 23, 2010
	Chuck Oden	October 21, 2010
	Stanley Ohara	October 18, 2010
	John O'Hern	October 20, 2010
	Theodore O'Hirok	October 23, 2010
	Stephen Oldfield	October 19, 2010
	Aaron Osmonson	October 18, 2010
	Dennis Pagones	October 18, 2010
	Mark Palmer	October 19, 2010
	Marguerite Panzica	October 19, 2010
	Jim Parks	October 20, 2010
	Steve Patchin	October 18, 2010
	George Patterson	October 18, 2010
	William Peakes	October 19, 2010
	Jean Pechin	October 19, 2010
	Joaquin Perea	October 18, 2010
	Stephen Perriera	October 20, 2010
	David Peterson	October 18, 2010

Table 4-1
List of Commenters on the 2010 Draft EIR/EIS/EIS

Letter ID	Commenter	Date
Form Letters	**(cont'd)**	
	Kimberley Peterson	October 18, 2010
	William Petrick	October 18, 2010
	Corley Phillips	October 19, 2010
	Rob Phillips	October 19, 2010
	Timothy Polishook	October 27, 2010
	Ryan Popple	October 18, 2010
	Jim Prola	October 18, 2010
	Rudy Ramp	October 18, 2010
	Jeff Ramsdell	October 20, 2010
	Robert Redding	October 23, 2010
	John Rees	October 18, 2010
	Diane Rehn	October 19, 2010
	Jeff Reid	October 18, 2010
	Randy Renick	October 18, 2010
	Randy Renick	November 1, 2010
	Michael Rettie	October 19, 2010
	Jerry Reynolds	October 19, 2010
	Dr. Alice Rich	October 20, 2010
	Kieran Ringgenberg	October 18, 2010
	Jack Robbins	October 26, 2010
	Walt Robinson	October 23, 2010
	Carl Roner	October 20, 2010
	Emanuel Rose	October 25, 2010
	Robert Rosenberg	October 18, 2010
	Al Ross	October 25, 2010
	John Rotticci	October 18, 2010
	Julie Rylak	October 20, 2010
	Cynthia Sabatini	October 28, 2010
	Carl Salmonsen	October 19, 2010
	Richard Sander	October 18, 2010
	Mark Sapiro	October 24, 2010
	Richard Saunders	October 18, 2010
	Robert Sawyer	October 25, 2010

Table 4-1 List of Commenters on the 2010 Draft EIR/EIS/EIS		
Letter ID	Commenter	Date
Form Letters	**(cont'd)**	
	Kathleen Schaefer	October 18, 2010
	M.J. Schaer	October 18, 2010
	Jeff Schillings	October 19, 2010
	Richard Schoen	October 18, 2010
	Tony Schopp	October 19, 2010
	Paul Schorr	November 3, 2010
	Steve Schramm	October 18, 2010
	Alex Schug	October 20, 2010
	Whitney Schutt	October 19, 2010
	David Sesline	October 18, 2010
	Larry Shelburne	October 18, 2010
	David Shinn	October 18, 2010
	Robert Sibbitt	October 19, 2010
	Dan Silver	October 18, 2010
	Robert Simas	October 30, 2010
	John Simler	October 25, 2010
	Philip Simon	October 25, 2010
	Seymore Singer	October 18, 2010
	Gary Slade	October 19, 2010
	Donald Smith	October 23, 2010
	Greg Someson	October 23, 2010
	K. Sonada	October 18, 2010
	Sonja Sorbo	October 18, 2010
	Tom Steele	October 19, 2010
	Peter Steinhart	October 19, 2010
	Terry Sternburg	October 18, 2010
	Kathryn Stewart	October 25, 2010
	John Stiegler	October 18, 2010
	Loretta Strickland	October 19, 2010
	Swanson	October 18, 2010
	Tim Swihart	October 18, 2010
	Stephen Szabo	October 18, 2010
	Ron Szymanski	October 19, 2010

Table 4-1 List of Commenters on the 2010 Draft EIR/EIS/EIS		
Letter ID	Commenter	Date
Form Letters	**(cont'd)**	
	James D. Taylor	October 20, 2010
	David Theis	October 18, 2010
	Robert Theys	October 18, 2010
	Arthur Thielen	October 23, 2010
	Greg Thomson	October 25, 2010
	Michael Tomlinson	October 18, 2010
	Lazlo Toth	October 18, 2010
	Jeff Trafican	October 18, 2010
	Virginia Trainor	October 23, 2010
	Robert Tranter	October 18, 2010
	Tom Vandenberg	October 18, 2010
	Alan Vidinsky	October 24, 2010
	Dan Waligora	October 27, 2010
	Jonathan Walker	October 18, 2010
	Charles Ward	October 18, 2010
	W. Watt	October 19, 2010
	Larry Weaver	October 19, 2010
	Adam Weidenbach	October 23, 2010
	James Weil	October 23, 2010
	Stuart Weinstein	October 23, 2010
	Gerald Weisbach	October 18, 2010
	David Welch	October 18, 2010
	Thomas Weseloh	October 24, 2010
	Richard West	November 4, 2010
	Bill Wickliffe	October 19, 2010
	Barry Wiedemann	October 18, 2010
	Rick Wiggins	October 19, 2010
	Roger Wilcox	October 30, 2010
	Allen Williams	October 19, 2010
	Guy Williams	October 18, 2010
	Jason Williams	October 19, 2010
	Scott Williams	October 20, 2010
	Bryan Willis	October 18, 2010

Table 4-1 List of Commenters on the 2010 Draft EIR/EIS/EIS		
Letter ID	Commenter	Date
Form Letters	**(cont'd)**	
	Baron Wolf	October 18, 2010
	Rev. Jeffrey Womble	October 18, 2010
	Brian Wright	October 18, 2010
	Randy Wulbern	October 18, 2010
	John Wyro	October 18, 2010
	Jerome Yesavage	October 24, 2010
	Mark York	October 18, 2010
	Cheryle Young	October 19, 2010
	Gerald Young	October 25, 2010
	Sue Young	November 4, 2010
	Harvey Zeidwerg	October 19, 2010
	Paula Zerzan	October 18, 2010
F2	Dustin Anino	September 20, 2010
	Laurie Anino	September 20, 2010
	Melissa Anino	September 22, 2010
	Alvin Bartley	September 27, 2010
	Stan Bobman	September 27, 2010
	Richard Brown	September 27, 2010
	Bill Chambers	September 27, 2010
	Larry Coffman	September 27, 2010
	Perry Damon	September 27, 2010
	Curt Emrie	September 27, 2010
	Jim Getz	September 20, 2010
	Robert Harms	September 27, 2010
	Otto Hefner	September 27, 2010
	Siegfried Heidemann	September 27, 2010
	Philip Hempler	September 27, 2010
	Karl Keller	September 27, 2010
	Dave Kimberling	September 21, 2010
	John Lilygren	September 27, 2010
	Joe McKenna	September 27, 2010
	Richard Miller	September 27, 2010
	Randall Neece	September 27, 2010

Table 4-1 List of Commenters on the 2010 Draft EIR/EIS/EIS		
Letter ID	Commenter	Date
Form Letters	**(cont'd)**	
	Gladys Norbriga	September 27, 2010
	Louis Nobriga	September 27, 2010
	S. Pannozzo	September 27, 2010
	Allen Petel	September 27, 2010
	Joyce Peterson	September 27, 2010
	Alida Pohl	September 27, 2010
	Pat Pohl	September 27, 2010
	James Price	September 27, 2010
	Richard Price	September 27, 2010
	R. Rathbun	September 27, 2010
	Carmen Santee	September 27, 2010
	Joe Scott	September 27, 2010
	Dotti Smith	September 20, 2010
	Will Smith	September 20, 2010
	Gina Stanley	September 27, 2010
	Ray Stanley	September 20, 2010
	Tom Teders	September 27, 2010
	Joe Timko	September 27, 2010
	Dick Ziker	September 20, 2010
F3	Todd Veale	September 22, 2010
	Jim Walsh	September 22, 2010
	Maureen Walsh	September 22, 2010
Public Meetings		
PM1	Advisory Planning Commission Meeting	October 13, 2010
PM2	TRPA Governing Board Meeting	October 23, 2010

4.4 COMMENTS AND RESPONSES ON THE 2010 DRAFT EIR/EIS/EIS

SECTION A

Agencies, Businesses, and Organizations

This page intentionally left blank.

BEAR League

Bear Education Aversion Response

P.O. Box 393 Homewood, CA 96141 (530) 525-P

AOB-1

November 13, 2010

Re: Upper Truckee River Restoration and Golf Course Reconfiguration Draft EIR/EIS

As one of the over 1500-member BEAR League in Homewood, CA, I am writing on their behalf as well as on behalf of the Board of Directors in support of Alternative 3 of the golf-course development proposed along the boundary of the Washoe Meadows State Park. You have already received letters from many organizations, including The League to Save Lake Tahoe and the Washoe Meadows Community, who are also in favor of this less-habitat-destructive Alternative for this incredibly sensitive area.

To be clear, we are strongly opposed to Alternative 2 not only for all of the arguments already presented by the above-named groups and the Sierra Club as well but also because the destruction of almost 1400 trees in this area which has been significantly impacted by the Angora Fire of 2007 is an unsustainable and unrecoverable loss to not only Washoe Meadows State Park but to the entire region as a whole. Due to the overwhelming loss of residential and wildland habitat as a result of this fire, wildlife intrinsic to this area have been compressed further into smaller and smaller existing forests and often are forced into residential areas as they migrate back and forth between their diminishing habitats. Alternative 2 provides only the most narrow 'corridor' to allow for wildlife passage. However, most wild animals in this area, including bears, martens and others have historic 'migration' routes that are oblivious of man-made corridors and will continue to follow these historic routes to forage along the river or in marshes and wetlands. The further destruction and degradation of raw land and forest as proposed under Alternative 2 will, of necessity, force wildlife increasingly into residential areas which is never a good solution. Despite decades of teaching by the BEAR League and Lake Tahoe Wildlife Care, many residents have yet to learn proper 'etiquette' required in order for all to survive and thrive when living in wildlife-rich communities.

AOB1-1

The BEAR League offers its voice to all other groups in support of Alternative 3 as we are strongly in favor of the restoration of the Upper Truckee River and its floodplain. Both are a vital water source not only for Lake Tahoe but for the entire ecology of this sensitive area which again, suffered immense damage from the Angora Fire and will take

many decades for its own recovery. Alternative 2 would be a further insult to land already under pressure to recover from fire.

Working together with the State, we have a unique opportunity to show other communities facing similar decisions in terms of the balance between development and habitat preservation that a coalition of State, local and community leadership can work together for the common good. By choosing Alternative 3 you send a strong signal that wildlife/wildland restoration and protection has equal value and can be synergistic with modest, well-planned development.

AOB1-1 cont.

Thank you for your time.

Sincerely,

Alexandra Van Zee, BEAR League members
For Ann Bryant and the BEAR League Board

AOB1-1 The commenter's opposition to Alternative 2 and support for Alternative 3 is noted. The commenter discusses the Angora Fire and has concerns about common wildlife and wildlife corridors. See Master Response Section 3.3, "Biological Resources," for a discussion of wildlife and wildlife movement corridors and response to comment I54-1 for a discussion of the Angora Fire.

AOB-2

CALIFORNIA TROUT

870 Emerald Bay Rd., Ste #303, box #7
South Lake Tahoe, Ca 96150
Phone/fax 530-541-3495

501 (c) 3 Tax Exempt ID: 23-7097680

State of California Department
Of Parks and Recreation,
Sierra District
Attn: Cyndie Walck
PO Box 16
Tahoe City, Ca 96145

October 27, 2010

Re: Upper Truckee River Restoration & Golf Course Reconfiguration Project Draft EIR/EIS/EIS

Dear Ms. Walck:

California Trout (CalTrout) would like to thank you for allowing us the opportunity to comment on the Draft EIR/EIS/EIS for the Upper Truckee River Restoration & Golf Course Reconfiguration Project. California Trout submits this letter on behalf of our over 7000 members throughout the state of California. CalTrout recently opened an office in Lake Tahoe so that we could provide a voice for the fish on important projects such as this.

Our Northern Sierra office, located in Lake Tahoe, has only been open for a year and a half however, during this time we have taken on many projects to protect and restore the Upper Truckee River Watershed. We have identified this river as a priority because it has a stronghold of Lahontan cutthroat trout, is the largest tributary flowing into Lake Tahoe, has many on-going restoration projects, and because it is a large sediment contributer to the lake. Some of the efforts we have taken on include; reinvigorating the Upper Truckee River Stewardship Group, conducting monthly citizen monitoring, campaigning for Wild & Scenic designation evaluation through the Lake Tahoe Basin Management Planning process, joining the Upper Truckee River Watershed Advisory Group, and assisting the Forest Service and California Department of Fish & Game in protecting the existing Lahontan cutthroat trout populations that exist in the upper reaches of the watershed.

All these efforts demonstrate our passion for this foremost tributary to Lake Tahoe. Restoration of the floodplain, meanders, and Stream Environment Zone are crucial to the fishery and to Lake Tahoe's famed clarity. Thus, ***CalTrout supports Alternative 2, 3, and 5*** because each of these proposed alternatives plans to accomplish a holistic and effective restoration for this section of the river. CalTrout would prefer Alternative 3 and 5 which either minimizes or decommissions the golf course but, would also support Alternative 2 which performs a land trade to move 9 holes out of the floodplain. If through the environmental review process it is found to be economically infeasible to limit the golf course Alternative 2 still provides for restoration. Although we do not support expansion of golf courses, particularly near watercourses, without supporting Alternative 2 we may not be supporting the only economically feasible option for the river restoration. AOB2-1

In regards to our recommended edits from moving between the draft environmental documents to the final please consider the following:

- Currently, the Recovery Implementation Team for Lahontan cutthroat trout (LCT) in the Tahoe Basin is beginning to evaluate waters for reintroduction. The Upper Truckee River is a prime candidate due to the presence of this threatened species in the upper watershed. Thus, we would appreciate that language such as in Table 3.5-5 be altered from the species not being expected to occupy the reach, to a consideration that they may eventually be expanded to the lower section of the Upper Truckee River. CalTrout hopes to partner with the project team in evaluating project components for the benefit of this native in-land trout. AOB2-2
- In addition, to an expanded consideration of LCT in project design we would like to see design elements that directly benefit native forage fish. AOB2-3
- Our suggestion is to not only "support," recovery efforts for LCT but to actively engage with these efforts. CalTrout hopes we can support this by providing a meadows restoration evaluation matrix for LCT to help improve project elements. AOB2-4
- We appreciate the concept of greater river access for anglers and suggest adding fishing platforms to the design to limit trampling and bank destabilization impacts. AOB2-5
- Also, we recommend a more comprehensive monitoring plan for aquatic invasive species. AOB2-6
- Finally, we recommend a better expressed watershed scale condition discussion that explains how this project connects and relates to other restoration efforts along the river. AOB2-7

Very truly yours,

Jenny Francis

Jenny Francis-Hatch
Northern Sierra Regional Director
California Trout

AOB2-1 The commenter's support for Alternatives 2, 3, and 5 is noted. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the draft EIR/EIS/EIS.

AOB2-2 The commenter requests modifications to Table 3.5-5 in the draft EIR/EIS/EIS to consider the reintroduction of Lahontan cutthroat trout. Table 3.5-5 provides the setting or environmental baseline for determining impacts based on the regulatory criteria of the California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), and Tahoe Regional Planning Agency (TRPA). In Section 3.5, "Biological Resources," of the draft EIR/EIS/EIS, the current "baseline" conditions are a reflection and culmination of both historical and existing and ongoing activities that affect a specific resource; the true baseline condition is often a dynamic range of conditions. Including speculative information about potential future actions and species introductions would distort the impact analysis and inaccurately represent potential project impacts.

AOB2-3 The commenter suggests considering Lahontan cutthroat trout in the restoration design. The restoration design includes many features that would benefit native forage fish. The habitat improvements were not explicitly characterized in the draft EIR/EIS/EIS as designs to benefit native fish; rather, the improvements were implied in the description of the restoration design. Restoring the river would result in an increase in suitable habitat for fish forage and reproduction by restoring natural processes. This would increase the complexity of instream habitat, which would increase habitat suitability for forage fish and benthos (i.e., presence of runs, riffles, pools, and undercut banks). Restoring eroding banks would result in a decrease in sedimentation which would result in an increase of suitable reproductive habitat. Less sediment deposition is expected in riffles, so these areas would become suitable for egg laying by fish, and for prey species. With an increase in native riparian vegetation, shading of the river would increase; as a result, water temperatures would decline (particularly during low-flow periods), which would be beneficial to fish. These changes, paired with decreased flows resulting from increased meanders, are expected to increase the suitability of habitat for benthic macroinvertebrates, which many fish rely upon for forage. Restoration would result in an increase in the base flow during low-flow periods because the river would be reconnected with the groundwater table. This reconnection would further maintain lower water temperatures, benefiting fish. Lastly, restoring the river and relocating the golf course from adjacent to the riverbanks would decrease nutrient loading within the river. Such a decrease should cause water quality to improve, which would be directly and indirectly beneficial for fish.

AOB2-4 The commenter offers to provide the California Department of Parks and Recreation (State Parks) a "meadows restoration evaluation matrix" to support and improve project elements. The purpose and goals of the Upper Truckee River Restoration and Golf Course Reconfiguration Project are not directly related to recovery efforts for the Lahontan cutthroat trout. However, if one of the project's restoration alternatives were to be implemented, habitat within the Upper Truckee River would be improved, boosting potential recovery efforts for Lahontan cutthroat trout in those locations.

AOB2-5 The commenter appreciates additional fishing access and suggests that fishing platforms be added to the design for bank protection. The project does not propose fishing

platforms at this time; however, if deemed necessary in the future, State Parks may consider platforms or other options as part of the Washoe Meadows SP recreation elements.

AOB2-6 The commenter suggests adding a more comprehensive monitoring plan for aquatic invasives. Mitigation Measure 3.5-7B, "Implement Aquatic Invasive Species Management Practices during Project Construction," would prevent the spread of aquatic invasive species during project construction. A monitoring plan will be developed, using the "Riparian Ecosystem Restoration Effectiveness Framework" as a guide and concentrating on the geomorphic and vegetation attributes. The monitoring will include surveys of stream profiles and cross sections, measurements of channel flow and capacity, assessment of floodplain inundation, measurements of groundwater levels, vegetation surveys, small-mammal surveys, invasive species, and photo monitoring points.

AOB2-7 The commenter suggests improving the discussion of watershed-scale conditions to connect to other restoration efforts, but does not provide specific discussion points. See Section 3.16, "Cumulative Impacts," in the draft EIR/EIS/EIS for a discussion of cumulative impacts and benefits.

AOB-3

EIS/EIR, Upper Truckee River Restoration & Golf Course Reconfiguration Project

Jennifer Taylor [jtaylor@cityofslt.us]

Sent: Wednesday, November 10, 2010 6:14 PM

To: Project, Upper Truckee

Cc: Stan Hill [shill@cityofslt.us]

Dear Ms Walk:

The City of South Lake Tahoe (City) received notice of circulation of the subject document and closing of public comment on November 14, 2010. Five project alternatives are under consideration:

1. No Project/No Action
2. Restoration of the Upper Truckee River Ecosystem and Reconfigured 18-hole Regulation Golf Course
3. Restoration of the Upper Truckee River Ecosystem and Reduced Play Golf Course
4. River Stabilization (in place) with Existing 18-hole Regulation Golf Course
5. River and Meadow Ecosystem Restoration / Decommissioned Golf Course.

AOB3-1

The City recognizes that the natural environment of the Lake Tahoe region is the area's greatest economic asset. Given the proximity to South Lake Tahoe city limits, the Lake Tahoe Golf Course is also key attraction for tourism and generates related revenues within our local economy.

Alternative 2 as described in the subject document proposes to provide an 18 hole regulation golf course (reconfigured) and also provide important environmental benefits. It is understood that with Alternative 2, construction would be sequenced such that no loss in play or reduction of the course would occur, rather holes would be relocated strategically to keep impact of play to a minimum. Alternative 4 would yield less environmental benefits yet still provide no change to the existing 18-hold configuration and maintain a tourism draw to the region. Alternative 1 will also maintain the existing 18 hold golf course, however offers no restoration or stabilization. The City can thus support all three of these aforementioned alternatives. However, due to the economic benefits received with the continuance of an 18-hole golf course, the City cannot support Alternative 3 or Alternative 5.

Thank you for the opportunity to comment. If there are any questions, please contact me.

Jennifer Taylor
Assistant Engineer

City of South Lake Tahoe
Public Works Department
Engineering Division
(530) 542-6036 TEL
(530) 541-3051 FAX
(530) 721-1270 CELL

NOTE: The engineering division office will be closed the 1st and 3rd Fridays of each month through 09/30/11

Letter	City of South Lake Tahoe, Public Works Department, Engineering Division
AOB3	Jennifer Taylor, Assistant Engineer
Response	November 10, 2010

AOB3-1 The commenter's support for Alternatives 1, 2, and 4 and opposition to Alternatives 3 and 5 are noted. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the draft EIR/EIS/EIS.

AOB-4

Comment on Upper Truckee Project EIR / EIS

Nancy Graalman [ngraalman@defenseofplace.org]

Sent: Monday, November 15, 2010 5:07 PM

To: Project, Upper Truckee

November 15, 2010

State of California Department of Parks and Recreation
Sierra District
Cyndie Walck
P.O. Box 16
Tahoe City, CA 96145

RE: Upper Truckee River Restoration and Golf Course Reconfiguration Project EIR

Dear Ms. Walck:

I submit the following comments for consideration relative to the proposals and analyses of the EIR / EIS published August 25, 2010. Primarily, Defense of Place strongly opposes Alternative 2.

Defense of Place is the nation's only organization founded solely to protect parklands, open spaces and nature preserves whose legal charters are threatened by sale, development and predatory changes in use. Defense of Place advocates for the inviolability of the principle of law that lands set aside "in perpetuity" for preservation or public use should never be sacrificed for economic or political motives. Any betrayal or manipulation of the donor's or institution's intent represents a loss of trust in all contracts that bind generations to a common heritage of land stewardship.

AOB4-1

The Upper Truckee River Restoration and Golf Course Reconfiguration Project has thus come to the attention of our organization due to the predicted loss of unique land and habitat and diminished public use if the Lake Tahoe Golf Course, as recommended by Alternative 2, is expanded west of the river into a significant footprint of Washoe Meadows SP.

We believe that by choosing an Alternative – even a new strategy – that will declare California's dedication to protected lands over development, that this project could set a precedent for the Tahoe Basin, for California, and for land preservation values throughout the nation.

Protected Status of Washoe Meadows State Park
Reference EIR: 3.2-3

State Parks acknowledges that relocation of the golf course holes would not be consistent with the purpose of Washoe Meadows State Park, so proposes revising the park unit boundaries, which would be supported by appropriate policy changes.

AOB4-2

We propose that this facile approach to reclassifying Washoe Meadows SP was begun without due public notice or process and inappropriately evades State Parks' regulatory obligations.

The State created Washoe Meadows State Park in 1984 with an "urgency" statute, " . . . in order to acquire as state lands an environmentally sensitive parcel of approximatey 777 acres of land comprising wetlands, meadow, and wildlife habitat for the purpose of protecting a unique and irreplaceable watershed through which the Upper Truckee River supplies approximately 40 percent of the water flowing into Lake Tahoe."

Yet by 2004 State Parks had solicited a proposal from John Harbottle Design / Golf Architecture (Tacoma, Wash.) for the feasibility of expanding the Lake Tahoe Golf Course (located within the Lake Valley State Recreation Area) into Washoe Meadows. (Comparable proposals from Harbottle Design were submitted to Nanette Hansel, EDAW, in 2005 and 2006).

AOB4-3

The earliest obtainable documents and public statements have fostered the idea that the economics of the proposal are so decisive that only a "championship caliber, regulation" course would be practical, which, according to Harbottle design would necessitate a course length of at least 6,000 yards and preferably 6,400 yards.

This size will necessitate annexing a substantial portion of Washoe Meadows State Park: the exact acreage is unknown, because, despite written and in-person requests for GPS coordinates and landmark tags showing the proposed golf course layout, exact positioning remains difficult.

AOB4-4

Early documents and ongoing statements from State Parks managers have consistently referred to the selected Washoe Meadows acreage as "less-environmentally sensitive lands," but a walking tour of the area reveals unspoiled land and habitat that continue to reflect the declaration of the 1984 charter that the 777 acres are "an environmentally sensitive parcel." . (A virtual walking tour of the site available at www.washoemeadowscommunity.org offers a remarkable comprehension of the impact the golf course would have in Washoe Meadows.)

AOB4-5

Washoe Meadows SP has been in a near-Catch 22 situation under the State's maintenance. In the EIR Impact 3.2-3 (Alt. 2) it is stated that State Parks has "not prepared a General Plan for Washoe Meadows SP . . . Consistency with a general plan is, therefore, not an issue because a Washoe Meadows SP plan does not exist."

The areas of Washoe Meadows that California State Parks shows during public tours represent the agency's passive maintenance and even actions that have caused certain deteriorated acres to look more suitable for the expanded golf course holes.

AOB4-6

The project also proposes that boundaries of the Washoe Meadows State Park and Lake Valley State Recreation Area will be realigned so that the restored habitat areas are within the state park and the entire golf course is within the state recreation area.

The EIR fails to present adequate information on the proposed exchange, and the statements of "no significant impact" are erroneous. Adequate measures are not presented that can mitigate the impacts of the exchange.

Please do not hesitate to contact me for further comments or to answer any questions you may have.

Nancy Graalman
Director
Defense of Place
a Project of Resource Renewal Institute
187 East Blithedale Avenue
Mill Valley, CA 94941
415.885.4972

AOB4-1 The commenter's opposition to Alternative 2 is noted. The commenter has concerns about loss of habitat resulting from additional public use of Washoe Meadows State Park (SP). See the following master responses:

- Master Response Section 3.2, "Land Use," for a discussion of land trade;
- Master Response Section 3.3, "Biological Resources," for a discussion of wildlife habitat; and
- Master Response Section 3.5, "Recreation," for a discussion of recreation access.

AOB4-2 The commenter's belief that the attempt to reclassify Washoe Meadows SP was done without proper public notice or process is noted. See response to comment AOB8-1 for a discussion of the public participation process. Washoe Meadows SP would remain a state park, and not be reclassified, under all the alternatives. If Alternative 2 were implemented, a boundary adjustment would occur wherein some land currently within the SP would become a part of the Lake Valley SRA, and other SRA land would become a part of Washoe Meadows SP.

AOB4-3 The commenter discusses the consistency of the project with the "urgency statute" that created Washoe Meadows SP (Section 3 in Chapter 1470, California Statutes of 1984). See Master Response Section 3.2, "Land Use."

AOB4-4 The commenter states an opinion about early documents and public statements of the economic differences between the two types of courses. The comment is noted. Written and in-person requests for Global Positioning System (GPS) coordinates and landmark tags were provided by State Parks as requested. Furthermore, numerous site tours were also provided to the general public, golfers, and agency staff. As stated in the draft EIR/EIS/EIS, the layout of golf course holes is conceptual; exact positioning will be developed during the final design and permitting process. During the environmental analysis the entire study area was evaluated for potential impacts. Areas with valuable cultural, biological, and other valuable resources have been avoided and/or protected through mitigation and design planned as part of the project's conceptual design. Avoidance and/or protection of these resources will continue through final design. It is consistent with CEQA, NEPA, and TRPA environmental processes to evaluate environmental impacts based on conceptual design, followed by the permitting process, which would be based on more detailed project design development. See Master Response Section 3.7, "Economics," for details on the economics of a shorter course versus a championship regulation 18-hole golf course.

AOB4-5 The commenter states that acreage selected for the proposed golf course reconfiguration is "unspoiled land and habitat that continues to reflect the declaration of the 1984 charter." See Master Response Section 3.2, "Land Use." See response to comment AOB8-6 for a discussion of quarry areas and soil piles.

AOB4-6 The commenter disagrees with the less-than-significant impact conclusions of the draft EIR/EIS/EIS regarding a land exchange between Washoe Meadows SP and Lake Valley State Recreation Area (SRA). See Master Response Section 3.2, "Land Use."

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

AOB-5

NOV 01 2010

Myrnie Mayville
Bureau of Reclamation
2800 Cottage Way, Room E-2606
Sacramento, CA 95825

Subject: Draft Environmental Impact Statement for Upper Truckee River Restoration and Golf Course Reconfiguration Project, El Dorado County, California [CEQ #20100345]

Dear Ms. Mayville:

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

The DEIS 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. 3.4-18). 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.

Alternatives 2, 3 and 5 would reconnect the river to historical meanders and the currently isolated floodplain, reactivating the surrounding terrace as an enlarged functional 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.

Alternative 5 (River Ecosystem Restoration with Decommissioned Golf Course) would be the environmentally superior alternative because it would result in the greatest reduction of land coverage; reduce soil, hydrological, and biological impacts; restore the largest area of Stream Environment Zone; and provide long-term water quality and habitat benefits (p. 4-5). Alternatives 3 and 2 would provide similar, but diminishing levels of environmental benefits.

We note that Alternative 1 (No Project/No Action) and Alternative 4 (River Stabilization with Existing 18-Hole Regulation Golf Course) do not meet the project purpose and need to reduce sediment and nutrient inputs and improve geomorphic processes, ecological functions,

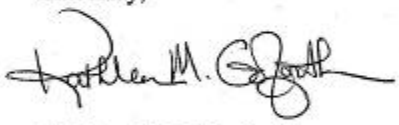
and habitat values. While Alternative 4 would address stream bank and bed stabilization to reduce channel erosion, it does not directly modify channel capacity, streambed elevation, frequency of overbanking, or the area of the functional active floodplain. The existing impaired geomorphic and ecological conditions would continue.

We urge California State Parks, Tahoe Regional Planning Agency, and the Bureau of Reclamation to consider implementation of the alternative that maximizes ecosystem benefits. We recognize the potential loss of golfing activity and revenues to the local economy inherent in Alternatives 3 and5; however, the DEIS states that there has been a decline in golfing demand (p. 3.8-15), in part due to increasing competition from other nearby golf courses (pps. 3.8-15, 3.8-31, and Appendix E: Lake Tahoe Golf Course Economic Feasibility Analysis). AOB5-1

Based on our review of the DEIS, we have rated the project and document as *Environmental Concerns – Insufficient Information* (EC-2). Please see the enclosed "Summary of EPA Rating Definitions." We would have significant concerns if Alternative 1 or 4 were selected for implementation because of their inability to meet the stated project purpose and need or to reverse existing impaired ecological conditions. The enclosed detailed comments provide recommendations for additional documentation that should be included in the FEIS regarding compliance with water quality standards, mitigation and monitoring, and Section 404 Clean Water Act compliance. AOB5-2

EPA appreciates the opportunity to provide input regarding the proposed restoration project. When the Final EIS is released for public review, please send one hard copy to the address above (Mail Code: CED-2). If you have questions, please contact me at 415-972-3521, or contact Laura Fujii, the lead reviewer for this project. Laura can be reached at 415-972-3852 or fujii.laura@epa.gov.

Sincerely,



Kathleen M. Goforth, Manager
Environmental Review Office (CED-2)
Communities and Ecosystems Division

Enclosures: Summary of EPA Rating Definitions
Detailed Comments

Cc: Cyndie Walchk, California State Parks
Mike Elam, Tahoe Regional Planning Agency
Robert Larsen and Harold Singer, Lahontan RWQCB

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).

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 GOLF COURSE RECONFIGURATION PROJECT, EL DORADO COUNTY, CA., NOVEMBER 1, 2010

Selection of the Preferred Alternative

Consider implementation of the alternative that maximizes ecosystem benefits. Alternatives 2, 3 and 5 would implement the same river restoration measures, differing in their treatment of the existing Lake Tahoe Golf Course. Many of the existing golf course holes are in the active (i.e., 5-year) floodplain, historic meander belt of the river, and within the Stream Environment Zone (SEZ) (p. 2-4). Bridges serving the golf course restrict flood flows and have modified the geomorphology and hydrology of Upper Truckee River in the study area. Alternative 2 would reconfigure the existing golf course to maintain an 18-hole regulation golf course while minimizing areas within the active floodplain and SEZ. Alternative 3 would reduce the size of the existing golf course to 9-holes and Alternative 5 would decommission the golf course. These alternatives would actively modify the channel and floodplain to restore natural geomorphic and hydrologic processes, providing long-term channel and floodplain stability and a significant reduction of fine sediments and nutrient inputs to the Upper Truckee River and Lake Tahoe. AOB5-3

Alternatives 1 and 4 would not address the long-term underlying causes of fine sediment and nutrient inputs to Lake Tahoe. Existing impaired conditions such as the disconnected floodplain, reduction and loss of historical stream meanders, restricting bridges, and golf course features adjacent to the river and within the SEZ would continue. Past efforts to address stream bank erosion, using similar techniques as proposed by Alternative 4 (riprap, root wads, bank hardening), have already partially failed, demonstrating that Alternative 4 may not provide a long-term solution to stream bank erosion and fine sediment and nutrient inputs (p. 2-85).

> ***Recommendation:***
> We urge California State Parks, Tahoe Regional Planning Agency, and the Bureau of Reclamation to consider implementation of the alternative that maximizes ecosystem benefits.

Meeting Water Quality Standards

Demonstrate consistency with Lake Tahoe TMDL and updated Tahoe Basin Regional Plan. Lake Tahoe is listed as impaired under Section 303(d) of the Clean Water Act for nitrogen, phosphorus, and sedimentation/siltation (p. 3.4-21). A Total Maximum Daily Load (TMDL) is being developed to meet the water quality objectives for deep water clarity and transparency (p. 3.4-1). The Lahontan Regional Water Quality Control Board (Lahontan RWQCB) is scheduled to consider this TMDL for adoption on November 16, 2010. The Tahoe Regional Planning Agency (TRPA) is also updating its 1987 Regional Plan in collaboration with the US Forest Service, Lahontan RWQCB, and Nevada Division of Environmental Protection (NV DEP) through their Pathway Collaborative Process. AOB5-4

> ***Recommendations:***
> The FEIS should demonstrate that the selected alternative is consistent with the proposed TMDL and Pathway Collaborative actions and objectives. The proposed action should not be in conflict with the updated Tahoe Basin Regional Plan. We recommend continued

close collaboration with the Lahontan RWQCB, NV DEP, US Forest Service, and other appropriate entities to ensure water quality standards and planning goals are met. AOB5-4 cont.

Mitigation and Monitoring

Provide detailed information on mitigation performance measures, implementation, and maintenance. 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. 3.4-47). The DEIS describes past efforts to address local erosion (riprap, root wads, bank hardening) which have not been successful and are already partially failed (p. 2-85). AOB5-5

Recommendation:
The FEIS 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.

Include validation monitoring to verify expected outcomes of the process-based design features. Alternatives 2, 3, and 5 include both form-based and process-based 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 (pps. 2-38, 2-46). Mitigation measures and monitoring are proposed to minimize short-term effects of construction. 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. AOB5-6

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.

Full Disclosure

Provide additional detail on the Section 404 permitting process. The DEIS states that the US Army Corps of Engineers (COE) Section 404 Regional General Permit 16 authorizes Lake Tahoe Basin activities with minimal individual and cumulative impacts, including wetland effects. The DEIS implies that this Regional General Permit would provide Section 404 Clean Water Act compliance for the proposed restoration project. The permit expired on September 30, 2010. The DEIS states an expectation that the COE would extend the expiration date of this permit and/or issue a replacement permit (p. 3.4-1). AOB5-7

Recommendations:
We recommend the FEIS include additional information regarding the 404 permitting process for this project. The current status of Regional General Permit 16 should be described, stating whether the permit has been extended or reissued and the specific activities covered by the permit. We urge California State Parks, TRPA, and Bureau of

Reclamation (BOR) to work with the Sacramento Office of the COE, as soon as possible, to ensure Section 404 compliance for this project. AOB5-7 cont.

Provide information to support the expectation that a return to natural river processes, versus stream bank and bed stabilization, would provide long-term reduction in fine sediment and nutrients. Alternative 4 would stabilize the stream bank and bed to reduce fine sediment loads to the Upper Truckee River and Lake Tahoe. This alternative would not directly modify channel capacity, streambed elevation, the frequency of overbank flooding, or increase the area of functional active floodplain. The DEIS concludes that Alternative 4 would maintain the existing impaired geomorphic and hydrologic processes limiting natural geomorphic adjustments to historic disturbances (p. 3.4-66). On the other hand, the DEIS states Alternative 4 would reduce fine sediment loads from stream bank erosion by 15.8% for the entire river relative to existing conditions, as compared to a 10.8% reduction under Alternative 2, 3, or 5, which directly modify the channel to restore natural river processes (pps. 3.4-65 and 3.4-42). AOB5-8

Recommendations:
The FEIS should include data to support the expectation that a return to natural geomorphic and hydrologic river processes, versus stream bank and bed stabilization, would provide a long-term reduction of fine sediments and nutrient inputs to the Upper Truckee River and Lake Tahoe. For example, include information on the state of river restoration science (level of success in obtaining restoration objectives, long-term sustainability) and a description of the costs and benefits of similar restoration efforts, such as the upstream Angora Creek restoration.

Include irrigation system improvements as an integral part of restoration. Include information on water rights and diversion effects. The existing golf course irrigation system is old, resulting in high water usage (960,000 gallons per day) and management inefficiencies (p. 3.3-34). Alternatives 2 and 3 would replace and modernize this system significantly, thereby reducing excess runoff and improving water conservation.

Recommendations: AOB5-9
We recommend replacement and modernization of the golf course irrigation system be an integral part of the restoration project if the selected alternative includes retention of a golf course of any size. Maximization of water conservation and water reuse technologies are likely to be of greater importance with climate change and the potential for more frequent and severe droughts. We recommend the FEIS include additional information on water rights and the effects of the surface and groundwater diversions for golf course irrigation.

Provide an estimate of the cost of restoration. The DEIS does not appear to provide information on the cost of the restoration project by alternative. Instead, the economic feasibility evaluation focuses on whether keeping, reducing, or eliminating the golf course would be economically sustainable and provide income to California State Parks. AOB5-10

Recommendations:
We recommend the FEIS provide an estimate of the cost of the restoration proposal. The FEIS should provide a comparative analysis of the alternatives based upon both the cost of the restoration and the economic feasibility/sustainability of the different golf course treatments (reconfigured, reduced-play, decommissioned).

AOB5-10 cont.

AOB5-1 The commenter states a preference for selecting an alternative to maximize ecosystem benefits, and refers to a statement in the economic study regarding a decline in golfing demand. Appendix E, "Lake Tahoe Golf Course Economic Feasibility Analysis," to the draft EIR/EIS/EIS acknowledges that the Lake Tahoe Golf Course has experienced declining gross revenues since 1997. The comment is noted. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the draft EIR/EIS/EIS.

AOB5-2 The commenter has rated the project through the U.S. Environmental Protection Agency's (EPA's) rating system as Environmental concerns—Insufficient Information (EC-2). The commenter discusses concerns about selecting Alternative 1 or Alternative 4 because of the inability of these alternatives to meet the project's purpose and need or to reverse existing impaired conditions. This comment refers to detailed comments related to water quality standards, mitigation and monitoring, and Section 404 Clean Water Act (CWA) compliance addressed in responses AOB5-4 through AOB5-9 below.

AOB5-3 The commenter states a preference for selecting an alternative that maximizes ecosystem benefits such as Alternatives 2, 3, and 5, and opposes Alternatives 1 and 4. The comment is noted. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the draft EIR/EIS/EIS.

AOB5-4 The commenter notes that the adoption status of the total maximum daily load (TMDL) for Lake Tahoe is changing, requests updated information in the final EIR/EIS/EIS, and notes that TRPA is also updating its 1987 regional plan in the Pathway Collaborative process. The commenter requests that the final EIR/EIS/EIS demonstrate that the selected alternative is consistent with the TMDL and Pathway Collaborative actions and objectives. The commenter urges continued coordination among sponsor, regulatory, and planning agencies to ensure that water quality standards and planning goals are met. The commenter is correct that the status of the proposed Lake Tahoe TMDL has changed since the public draft EIR/EIS/EIS was issued. The updated information is presented in Chapter 5, "Corrections and Revisions to the Draft EIR/EIS/EIS," and reads as follows:

> Under Section 303(d) of the CWA, water quality–limited segments are identified, and TMDLs of pollutants to a water body listed as impaired pursuant to that section are required. Lake Tahoe is listed as impaired, and the TMDL developed by California and Nevada to address pollutant loadings from all sources to achieve existing water quality objectives for deep water clarity and transparency (namely loadings of nitrogen, phosphorous, and fine sediment) has been adopted (California Water Boards 2011).

If an action alternative is approved, State Parks has, and will continue to coordinate with the sponsor agencies and all regulatory agencies with jurisdiction over the project during the final design process. The project will comply with all water quality planning guidance, water quality standards, and regulatory requirements that are in effect at the time of final project design, permit approval, and if applicable, as modified by regulatory agencies during construction.

The draft EIR/EIS/EIS has assessed the project alternatives for consistency with the present TRPA Regional Plan (including adopted goals, policies, plan area statements [PASs], and ordinances), and with the adopted environmental thresholds. Evaluation of consistency of the project with future changes to the TRPA Regional Plan would be speculative at this point because no modified versions of the plan have been released to the public.

AOB5-5 The commenter requests a detailed mitigation performance standards, monitoring and reporting, and maintenance. A mitigation monitoring and reporting program will be developed after project approval. As suggested by the commenter, this program will identify all mitigation measures, time frame for implementation of each measure, monitoring and reporting requirements, and responsible parties. The commenter also notes the draft EIR/EIS/EIS description of failed past efforts. These efforts were spot treatments and this type of approach was eliminated from further consideration as discussed in Section 2.2.2, "Alternatives Considered but Eliminated from Detailed Evaluation."

AOB5-6 The commenter requests that monitoring be implemented to verify whether the restored river channel dynamics under Alternatives 2, 3, or 5 create the predicted channel dimensions in the future. Monitoring and adaptive management activities required pursuant to CEQA, NEPA, and TRPA regulations are included in the draft EIR/EIS/EIS with a focus on parameters that assess the performance of any implemented alternative relative to the mitigation requirements for adverse environmental impacts, and/or to provide data that informs mitigation implementation decisions. It is beyond the scope of CEQA, NEPA, or TRPA monitoring requirements to require validation of design assumptions aside from those directly linked to identified impacts and mitigation. Some of the mitigation measures will require collection of data that may be useful in addressing the long-term condition of the river. Additionally, State Parks has made a practice of detailed topographic and hydrologic monitoring as part of their regular management activities for the study area for over a decade, as well as for pre- and postproject comparison for other restoration sites. State Parks would continue to conduct similar analyses in the project reach using the "Riparian Ecosystem Restoration Effectiveness Framework" as a guide, concentrating on the geomorphic and vegetation attributes. The monitoring will include stream profile and cross section surveys, channel flow and capacity measurements, floodplain inundation, groundwater level measurements, vegetation surveys, small mammal surveys, and photo monitoring points to evaluate project success.

AOB5-7 The commenter notes that CWA Section 404 permitting processes and options within the Lake Tahoe Basin recently changed and recommends that updated information be included in the final EIR/EIS/EIS. The commenter urges sponsor and regulatory agency coordination to ensure compliance with CWA Section 404.

The commenter is correct that some Federal and State water quality regulations have changed since the public draft EIR/EIS/EIS was issued. Chapter 5, "Corrections and Revisions to the Draft EIR/EIS/EIS," reflects these changes, which are as follows:

> Section 404 of the CWA requires projects to receive authorization from the Secretary of the Army, acting through the U.S. Army Corps of Engineers (USACE), to discharge dredged or fill material into waters of the United States, including wetlands, whether the discharge is temporary or permanent. Waters of the U.S. are generally defined as "…waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce,

including all waters which are subject to the ebb and flow of the tide; territorial seas and tributaries to such waters." Section 404 is generally applicable to projects in which fill material would be placed within or below the ordinary high-water mark of a stream. USACE Regional General Permit 16, authorizing activities with minimal individual and cumulative impacts on waters of the United States, including wetlands, in the Tahoe Basin, expired September 30, 2010. USACE did not issue a replacement regional permit, so coverage via an appropriate nationwide permit (e.g., Nationwide Permit 27 for aquatic habitat restoration, establishment, and enhancement activities) or an individual permit would be required. In conjunction with USACE's CWA Section 404 permits, CWA Section 401 requires that water quality certifications or waivers be issued by EPA, the states, or both (see below).

Before approval of detailed design used for project construction, a delineation of waters of the United States (including wetlands) that would be affected by project implementation would be conducted by a qualified biologist through the formal Section 404 wetland delineation process. The delineation would be submitted to and verified by the Sacramento District of USACE. Authorization for fill or reconstruction of jurisdictional waters of the United States, including wetlands, would be secured from the Sacramento District of USACE through the Section 404 permitting process. Section 404 permitting through either a nationwide or individual permit will likely require the following information:

- determination of the volume and types of material to be placed into waters of the United States;
- determination of the total area of waters of the United States to be directly and indirectly affected;
- wetland delineation in accordance with the 1987 Wetland Delineation Manual and the Western Mountain Regional Supplement (USACE 1987, 2008) when wetlands are proposed for impacts;
- description of habitat, including plant communities, located in the study area;
- description of any environmental impacts that are expected to occur, including methods to avoid, minimize, or mitigate adverse impacts on water quality or aquatic functions at the project site;
- other information pertinent to the wetland, stream, or water body involved;
- for projects involving the restoration of greater than 3 acres of wetlands, evidence that the U.S. Fish and Wildlife Service (USFWS) has been provided with a courtesy copy of the project notification; and
- a copy of the Section 401 water quality certification or waiver issued for the project.

State Parks will coordinate with the Sacramento District of USACE to ascertain the appropriate CWA Section 404 permit for the project, develop and submit all application materials, and comply with all permit requirements affecting final design, implementation, and/or monitoring and reporting.

AOB5-8

The commenter requests additional information to support the expectation that returning natural geomorphic and hydrologic river processes (Alternatives 2, 3, and 5) would perform better at long-term reduction of fine sediment than streambank and bed stabilization (Alternative 4). The results from technical studies for the Lake Tahoe TMDL, included in the draft EIR/EIS/EIS (pages 3.4-42 to 3.4-43), that used science-based predictions of future erosion of the Upper Truckee River's stream channel support the conclusion that all action alternatives would result in a substantial long-term reduction in sedimentation from channel erosion, as described below.

Impact 3.4-1 for all alternatives provides quantitative and relative comparisons of the project's water quality benefits, evaluating reductions in sources of pollutants generated from channel erosion and sedimentation (Tables 3.4-11 and 3.4-12). The commenter is correct in noting that the estimated magnitude of this source-reduction benefit is greater under Alternative 4 (15.8%) than under Alternatives 2, 3, and 5 (10.8%). Potential benefits from retaining fine sediment and nutrients (pollutant "trapping/treatment") on the active floodplain are described under Impact 3.4-4 for each alternative. These benefits are in addition to the estimated benefits from reduced channel erosion (pollutant "source reduction"). Restoring and expanding the active floodplain and functional overbanking under Alternatives 2, 3, and 5 would be a benefit; this benefit is quantified in terms of area increase and frequency increase, which are both substantial improvements relative to the baseline or Alternative 4. Therefore, the advantage of restoring natural river processes is that it includes the benefits of both reduced channel erosion (Impact 3.4-1) and increased floodplain retention (Impact 3.4-4).

In terms of both channel erosion and floodplain retention, all of the action alternatives represent substantial and measurable improvements over the baseline condition or in the future under Alternative 1. These improvements are documented in the draft EIR/EIS/EIS using scientifically based, quantified data suitable for ranked comparison of alternatives.

The commenter requests additional information on the long-term success of river restoration and a cost-benefit analysis of similar restoration efforts. See Master Response Section 3.7, "Economics," for a discussion of anticipated costs associated with the proposed project. Beneficial effects of the alternatives on water quality, habitat, and sediment reduction are discussed in Sections 3.4, "Geomorphology and Water Quality," 3.5, "Biological Resources, and 3.16, "Cumulative". Analysis of costs and benefits of other restoration projects is extremely variable dependant on factors such as the regulatory environment, scope, treatment intensity, stream and surrounding floodplain size, mobilization costs, access, construction schedule and contract limitations, and material availability and costs. Therefore, analysis of cost and benefits comparison to other restoration projects is too speculative and has not been included in this EIR/EIS/EIS.

AOB5-9

The commenter supports improving the irrigation system as an important element of restoration. The commenter notes the maximum potential daily water use (960,000 gallons per day) and existing inefficiencies cited in the draft EIR/EIS/EIS. Therefore, the commenter prefers Alternatives 2 and 3 in terms of water use efficiency. For clarification of the estimated total (not just maximum) water use, river diversion, and groundwater effects under all alternatives, see Master Response Section 3.4, "Hydrology, Flooding, Geomorphology, and Water Quality."

The commenter also requests that information about water rights be included in the final EIR/EIS/EIS. State Parks will pursue modifications (if needed) to its existing water rights as part of permitting (and final design if necessary based on permitting requirements)

after the final EIR/EIS/EIS is certified, because the status of water rights and possible changes are important legal issues, but would not affect the physical environment, because Alternative 2 would not use more water than historical use that was allowed under the existing water right. Furthermore, if any change to surface water right was needed the deep groundwater well could provide water needs instead of river without creating negative impacts to the river and surrounding habitat. Water rights information is included in Section 3.3, "Hydrology and Flooding," of the draft EIR/EIS/EIS (page 3.3-34). Information about water use is presented in Master Response Section 3.4, "Hydrology, Flooding, Geomorphology, and Water Quality."

AOB5-10 The commenter requests that the cost of restoration be stated. See Master Response Section 3.7, "Economics," for a discussion of costs and potential funding.

AOB-6

Upper Truckee River Restoration Project

Casey Blann [CBlann@vailresorts.com]

Sent: Tuesday, October 26, 2010 1:29 PM

To: Project, Upper Truckee

To Whom It May Concern:

The only Alternative that treats the erosion issue adequately while also keeping a high-quality recreation experience is **Alternative 2.**

As a long-time resident of the South Shore (29 years), I have personally seen the negative effects of erosion along that stream area. Many of us have already completed our own personal BMP requirements for our own homes to assist the concerns over erosion control and sediment being washed into the Lake—this is an obvious 'no brainer" due to it's location as the largest tributary to the Lake.

This being said, an equally important issue relates to the quality of recreation in the South Shore. While there is a "glut" of quality Golf Courses in both the Carson Valley as well as the Truckee Area; here at the Lake there is a wide disparity from the Edgewood or Incline Courses and the City operated or lesser priced back-yard courses. Lake Tahoe Golf Course represents a quality experience and fills an important niche at a price that doesn't break the bank. AOB6-1

We in the Tahoe Area need quality recreational activities on a 12 month basis in order to provide the experiences people are seeking. Ours is a Tourist Economy that needs the unique and naturally beautiful experience that Lake Tahoe Golf Course has provided in the past and will continue to provide if Alternative 2 is selected. The other Alternatives will only be seen as "take-aways" or as another decline in our ability to appropriately serve our Guests needs.

Thank you for your consideration.

Casey Blann
Vice President, Mountain Operations
Heavenly Mountain Resort
530-542-5193
www.skiheavenly.com

VAILRESORTS.

Letter	Heavenly Mountain Resort
AOB6	Casey Blann, Vice President, Mountain Operations
Response	October 26, 2010

AOB6-1 The commenter's support for Alternative 2 is noted. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the draft EIR/EIS/EIS.

AOB-7

Comment on Draft EIS for Upper Truckee River Project

Tom Fortune [TFortune@vailresorts.com]

Sent: Monday, October 25, 2010 5:07 PM

To: Project, Upper Truckee

Dear Sirs,

I am writing to express my support of **Alternative #2** for the **Upper Truckee River Restoration** and **Golf Course Reconfiguration Project**.

Alternative #2 preserves jobs and vital economic sustainability to our region, not to mention important dollars to our California State Parks.

AOB7-1

We all support the vitality of our lake and surrounding environment – Alternative # 2 is a "win – win" and common sense approach to mitigating the restoration of these important assets to our community.

Please feel free to contact me with any questions or for further support.

Sincerely,

Tom Fortune
Director of Base Operations
Heavenly Mountain Resort
Phone 530-542-6926
Cell 775-450-0988

www.skiheavenly.com

VAILRESORTS
EXPERIENCE OF A LIFETIME
Please consider the environment before printing this email

Letter	Heavenly Mountain Resort
AOB7	Tom Fortune, Director, Mountain Operations
Response	October 25, 2010

AOB7-1 The commenter's support for Alternative 2 is noted. This comment does not raise issues regarding the adequacy, accuracy, or completeness of the draft EIR/EIS/EIS.

CHARITY KENYON

kenyon | yeates LLP

2001 N STREET, SUITE 100
SACRAMENTO, CALIFORNIA 95811
916.609.5000 FAX 916.609.5001

AOB-8

November 15, 2010

Sent Electronically and Overnight Delivery

Cyndie Walck
California State Parks and Recreation
Sierra District
P.O. Box 16
Tahoe City, CA 96145
utproject@parks.ca.gov

Tahoe Regional Planning Agency
P.O. Box 5310
128 Market Street
Stateline, CA 95814

U.S. Bureau of Reclamation
Mid-Pacific Regional Library
2800 Cottage Way
Sacramento, CA 95825

Re: Upper Truckee River Restoration and Golf Course Reconfiguration Project (State Clearinghouse #200608215)

Dear Ms Walck:

Our firm has been asked by our client, Washoe Meadows Community, to comment on the combined EIR/EIS/EIS prepared on the above-referenced project. In addition, attached separately to our letter is the separate comment letter from the Washoe Meadows Community and Dr. Rick Hopkins of Live Oak Associates.

I. Selection of Alternatives

We realize that this EIR/EIS/EIS is intended to comply with the California Environmental Quality Act ("CEQA") (for California Department of Parks and Recreation, hereafter "State Parks," and any other California responsible public agencies), the National Environmental Policy Act ("NEPA") (for the U.S. Bureau of Reclamation, hereafter "BOR," and any other federal agencies), and the Tahoe Compact (for the Tahoe Regional Planning Agency, hereafter TRPA).

The Executive Summary of the EIR/EIS/EIS describes the "proposed project," as follows:

> The primary purpose of the proposed project is to restore natural geomorphic and ecological processes along [a designated] reach of [Upper Truckee R]iver and to reduce the river's suspended sediment discharge to Lake Tahoe. Four alternatives

> 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, removal of the entire Lake Tahoe Golf Course, or reconfiguration of the golf course to allow for restoration of the river, to reduce the area of Stream Environment Zone (SEZ) occupied by the golf course, and to allow for establishment of a buffer area between the golf course and the river.

(EIR/EIS/EIS, p. ES-1.) The Executive Summary goes on to explain,

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

(Id. at p. ES-3.) The five alternatives are:

1. Alternative 1 No-Project/No-Action: Existing River and 18-Hole Regulation Golf Course;
2. Alternative 2 River Ecosystem Restoration with Reconfigured 18-Hole Regulation Golf Course;
3. Alternative 3 River Ecosystem Restoration with Reduced-Play Golf Course;
4. Alternative 4 River Stabilization with Existing 18-Hole Regulation Golf Course; and,
5. Alternative 5 River Ecosystem Restoration with Decommissioned Golf Course.

(Id. at pp. ES-3-6.)

Based on public testimony by representatives of State Parks at the TRPA information hearing held before the Governing Board on October 27, 2010, we do not believe the EIR/EIS/EIS has provided a reasonable range of alternatives for the public and public decision-makers to review and consider. Moreover, for purposes of compliance with CEQA, we believe the EIR has failed to identify Alternative 2 as the state lead agency's (State Parks) proposed project. At the TRPA hearing the representatives testifying on behalf of State Parks stated that Alternatives 3, 4, and 5 would not be feasible, because they either would not meet State Parks' economic objectives or would not receive BOR funding. This leaves the Alternative 1, the no project alternative, and State Park's proposed project -- Alternative 2, river restoration with an expanded golf course on the west side of the Upper Truckee River within Washoe Meadows State Park. AOB8-1

CEQA requires an EIR to describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project. (CEQA Guidelines, § 15126.6, subd. (a).) Here the state lead agency has stated that Alternatives 3 through 5 will not feasibly attain the basic objectives of the project leaving the public and

public decision makers with the limited choice of doing nothing or doing what the state lead agency wants to do in comparing the options available. This limited scope of feasible alternatives will not foster informed decisionmaking and public participation in the consideration of the project's primary purpose – the restoration of the natural geomorphic and ecological processes along a reach of the Upper Truckee River and to reduce the river's suspended sediment discharge to Lake Tahoe.

If State Park's economic interests trump the proposed project's primary purpose then the range of alternatives presented in the EIR do not satisfy CEQA's requirements. If, however, Alternatives 3 through 5 are feasible, and are simply not the preferred choice of State Parks, the other two lead agencies and, in particular TRPA, must compare among the five alternatives, which alternative will fulfill the proposed project's "primary purpose" -- the restoration of the natural geomorphic and ecological processes along a reach of the Upper Truckee River and to reduce the river's suspended sediment discharge to Lake Tahoe.

AOB8-1 cont.

II. Impact of the Alternatives on TRPA Threshold Carrying Capacities

Pursuant to Art.V(g) of the Tahoe Compact, TRPA must determine that the project under review will not adversely affect implementation of the regional plan and will not cause the adopted environmental threshold carrying capacities of the region to be exceeded. In this situation in determining the preferred alternative TRPA is guided by "Threshold Carrying Capacities" ("thresholds"), which are standards of environmental quality to be achieved in the Tahoe Region. The standards identify the level of human impact the Lake Tahoe environment can take before irreparable damage occurs. (EIR/EIS/EIS, p. 4-6.)

A. Short-Term Risk of Surface Water or Groundwater Degradation Following Construction

According to the EIR/EIS/EIS, Alternatives 2 through 5, despite mitigation, will have significant and unavoidable short-term water quality impacts due to the restoration or treatment work within the river channel and along the banks. (See Impact 3.4-7 (Alt. 2), pp. 3.4-55-57; (Alt. 3), pp. 3.4-62; (Alt. 4), pp. 3.4-68-69; (Alt. 5) pp. 3.4-73-74.) However, in comparing Alternatives 2 through 5, Alternative 4 has the least impact short term impact on water quality among the others, and would have the least impact on a TRPA threshold. As the EIR/EIS/EIS states:

> Under Alternative 4, the river system would be expected to respond to an unusually large flood within the first few years after construction differently than Alternative 2, since Alternative 4 would treat the entire reach between hard grade controls (RS 1400 to RS 8800), would not enlarge or reactivate as floodplain portions of the existing terrace that have remained isolated from flow and have accumulated sediment, and would not modify the alignment or create backfilled channels that could be vulnerable to recapture. These differences reduce the potential likelihood and magnitude of effects from a large flood event relative to existing conditions.

AOB8-2

(Id. at p. 3.4-69.) Additionally, as the EIR/EIS/EIS analysis points out, Alternative 3 would have less of a short-term impact on water quality than Alternative 2:

> Potential impacts from overbank and upland areas would be similar to those under Alternative 2, although the area of disturbance west of the river would be avoided and the extent of disturbance in the existing golf course (including active and 100-year floodplain) would be larger.

AOB8-2 cont.

(Id. at p. 3.4-62.) In evaluating what alternatives will exceed TRPA water quality thresholds Alternatives 3 and 4 are superior to Alternative 2. Furthermore, if you look at the construction schedules and the length of time areas along the river will be disturbed, Alternative 2 has the lengthiest construction schedule putting the greatest risk on water quality and other thresholds during the over wintering and spring high water periods. (See EIR/EIS/EIS, pp. 2-59-61 (Alt. 2), 2-77-78 (Alt. 3), 2-91-92 (Alt. 4), 2-106-107 (Alt. 5).)

B. Alternative 2 has significant impacts on Uncommon Plant Communities

As pointed out by Dr. Hopkins and the Washoe Meadows Community's comments, the EIR/EIS/EIS inaccurately describes the location of the wet meadows, fens, 100-year floodplain and stream environment zone ("SEZ") that will be impacted by the relocation of nine golf holes and associated fairways, cart paths, and other ancillary facilities associated with the golf course expansion along the west side of the Upper Truckee River in Washoe Meadows State Park.

As the EIR/EIS/EIS acknowledges, the springs and fens within Washoe Meadows State Park are uncommon plant communities that under the V-2 Uncommon Plant threshold should be protected from degradation. The existence of these unique underground springs and wet meadows or fens is why TRPA sought to protect this area from development years ago and why the State of California purchased the land -- to protect these unique and sensitive wet meadows and springs. The EIR/EIS/EIS fails to accurately describe the location of these resources. Further, the design of the golf course is only conceptual, so the public and public decision makers do not have any "on-the-ground" understanding of where the golf development will be located in relation to these protected resources. (*Save Our Peninsula Committee v. Monterey Co. Bd. of Supervisors* (2001) 87 Cal.App.4th 99, "the impacts of the project must be measured against the 'real conditions on the ground.'")

AOB8-3

There has been no attempt to overlay the expanded golf course on the west side of the river on any of the exhibits that attempt to depict the 100-year floodplain, SEZ, or uncommon plant communities and springs. For example, Exhibit 2-1 at page 2-5 of the EIR/EIS/EIS depicts the study area resources including the 100-year flood plain, SEZ, and sensitive resources. In contrast, Exhibit 2-5 which depicts the "conceptual" layout of the expanded golf course on the west side of the river fails to show any topographic lines or any designation of floodplain areas.

Furthermore, the depiction of the location of the wet meadows and underground springs is simply inaccurate. For example, based on a site visit after the TRPA hearing, members of the Washoe Meadows Community were able to show me that the area where conceptual greens 8 and 12 are shown on Exhibit 2-5 and the naturalized area within the conceptual golf course

between these two conceptually laid out golf holes is a low, wet meadow area that drains toward the river. Exhibit 3.5-1, which depicts the vegetation types, misleadingly leaves the impression that this area is a lodgepole pine/dry meadow or lodgepole pine-mesic type vegetation habitat. This exhibit is simply inaccurate, because it uses such a broad brush to depict the vegetative cover over what is an obvious meadow area if the reader simply looks through the color overlay at the aerial depiction of the landscape. The conceptually laid out golf course is laid across a substantial wet meadow complex. While there may be some lodgepole pine trees at the edge of this meadow along the west side of the river, the central portion of the landscape is an open wet meadow and based on the topography of the land this wet meadow drains slowly toward the river to the east. (See *Oro Fino Gold Mining Corporation v. County of El Dorado* (1990) 225 Cal.App.3d 872, 883, "Relevant personal observations … can constitute substantial evidence.")

Furthermore, as the conceptually laid out golf course heads southwesterly toward Chilicothe Street outside the park boundaries on Exhibit 2-5, Hole #10 and the new pond adjacent to Hole #9 appear to be within the 100 year floodplain when comparing Exhibit 2-5 to the floodplain designated on Exhibit 2-1. In addition, Holes #10 and #11 as conceptually shown on Exhibit 2-5 surround an area depicted on Exhibit 2-1 as sensitive habitat. In fact, this is an area where there is one of those deep underground springs for which the area within Washoe Meadows State Park was acquired to protect. How will the construction, irrigation, and operation of the golf course affect the uncommon fen/spring plant community? AOB8-3 cont.

Of all the alternatives, Alternative 2 is the only alternative that places additional man-made development on top of or immediately adjacent to the 100-year floodplain and uncommon plant communities within Washoe Meadows State Park. Yet, the EIR/EIS/EIS analysis and exhibits are confusing and misleading and, therefore, fail to provide the public and public decision makers with accurate information that would lead to an informed understanding and decision about the environmental consequences of extending the golf course to the west side of the Upper Truckee River into the Washoe Meadows State Park. The baseline conditions within Washoe Meadows State Park where the golf course will be constructed and operated must be accurately described and depicted on exhibits so that the physical changes to the existing environmental conditions can be understood by the public and their decision makers. (See *San Joaquin Raptor/Wildlife Rescue Center* (1994) 27 Cal.App.4th 713, 722, "the inadequate consideration and documentation in the EIR of existing environmental conditions rendered it impossible for the [FEIR] to accurately assess the impacts the project will have on wildlife and wildlife habitat or to determine appropriate mitigation measures for those impacts.")

C. Verification of Coverage is Inaccurate and Skews the Comparison of Alternatives

The Conservation Element (Chapter IV) of TRPA's Regional Plan for the Tahoe Basin emphasizes the important role conservation of the existing soil plays in protecting Lake Tahoe. AOB8-4

> The soil resource plays an important role related to all aspects of the physical and biological environment. . . . Two environmental thresholds [impervious cover and stream environment zones] are the basis for developing strategies for protection of the soil resource . . . .

Regarding "Impervious Cover" the Regional Plan's first goal is to "minimize soil erosion and the loss of soil productivity. Goal #1 goes to state: "Protection of the Region's soil is critical in preventing excessive sediment and nutrient transport to the streams and lakes." Policy #1 under this goal acknowledges that the Regional Plan's Land Use Subelement establishes policies which limit impervious land coverage consistent with the impervious land coverage land coverage limits set forth in the "Land-Capability Classification of the Lake Tahoe Basin, California-Nevada, a Guide for Planning," Bailey 1974.

TRPA implements these land coverage goals and policies through Chapter 20 "Land Coverage Standards" in the Code of Ordinances. The EIR/EIS/EIS evaluates the alternatives' impervious land coverage in the Earth Resources section (Section 3.6) of the environmental document. At page 3.6-30 the EIR/EIS/EIS evaluates the land coverage changes associated with Alternative 2, however, this analysis is very confusing and the coverage numbers are unclear or not in compliance with Chapter 20 of the Code of Ordinances.

The EIR/EIS/EIS states that allowable coverage is based on pre-1972 existing coverage plus banked coverage or Bailey coverage whichever is greater. According to Table 3.6-8 the base coverage under Bailey allowed for Land Capability District ("LCD") 1b soils within the study area in Washoe Meadows State Park is 50,398 sf. The base coverage under Bailey allowed for LCD 1b soils at Lake Valley State Recreation Area is 83,963 square feet.

According to the EIR/EIS/EIS at page 3.6-30:

> Coverage allowed is based on TRPA allowable base coverage or the pre-1972 "grandfathered" coverage (includes existing and banked pre-1972 coverage), whichever is greater. Coverage allowed within 1b in the study area (both units) is 480,521 sf. Under Alternative 2, 378,499 sf of coverage is proposed in LCD 1b, including cart paths, bridges, designated trails, parking area improvements, as well as other existing coverage that would not be modified. This is a decrease of 37,853 sf from existing coverage (416,352 sf) within LCD 1b.

AOB8-4 cont.

This coverage calculation is wrong. Compare Tables 3.6-4 and 3.6-5 at pages 3.6-19 and 3.6-20 with Tables 3.6-8 and 3.6-9 at page 3.6-31 of the EIR/EIS/EIS. The pre-1972 "grandfathered" coverage for LCD 1b soils in Washoe Meadows State Park is 126,648 sf. (See Table 3.6-4 at page 3.6-19.) Of the 126,648 of existing pre-1972 coverage 35,983 sf has been restored. Table 3.6-4 then shows that 30,757 sf is "Banked coverage." What is confusing is that Table 3.6-4 shows that TRPA has verified existing coverage to be 130,133 sf which is higher than the allowed coverage per Bailey (50,398 sf) and the pre-1972 "grandfathered coverage" (126,648 sf). The same confusing situation is shown in Table 3.6-5 for LCD 1b at Lake Valley SRA as TRPA verified existing coverage (286,219 sf) is higher than would be allowed under Bailey (83,963 sf) and higher than existed pre-1972 (251,536 sf). It is unclear where this additional TRPA verified coverage came from, because the EIR/EIS/EIS states that "[t]he coverage in both units existed prior to acquisition by State Parks." (EIR/EIS/EIS, p. 3.6-19.)

If existing TRPA verified land coverage exceeds the existing pre-1972 land coverage then wouldn't the existing coverage that exceeds the pre-1972 coverage be considered illegal coverage?

Regarding the "banked coverage" the EIR/EIS/EIS explains where this coverage comes from, as follows:

> A program has been implemented by State Parks to restore some of the disturbed areas of coverage both in Washoe Meadows SP and Lake Valley SRA and the pre-1972 coverage has been banked as mitigation.

(Id. at p. 3.6-19.) Therefore, the "banked coverage" comes from the pre-1972 "grandfathered" coverage at both Washoe Meadows State Park and Lake Valley SRA. So when the EIR/EIS/EIS concludes that the allowed coverage at both sites is 480,521 sf, this is wrong because this total "double counts" the banked coverage. Basically it re-adds the "banked" coverage to the TRPA "verified" coverage. So not only is the TRPA verified coverage an anomaly because it is greater than the pre-1972 coverage, but the EIS/EIR/EIR adds the pre-1972 banked coverage to the TRPA verified coverage total. This "double counting" of the pre-1972 coverage is not allowed under Chapter 20 of the TRPA Code of Ordinances.

Based upon the pre-1972 coverage figures shown on Tables 3.6-4 and 3.6-5 existing LCD 1b coverage within the study area at Washoe Meadows SP and Lake Valley SRA should be 378,184 sf., so there is not a beneficial decrease of existing LCD 1b coverage, since Alternative 2 will require 378,499 sf of LCD 1b coverage. AOB8-4 cont.

The analysis of LCD 1c soils is even more confusing. The EIR/EIS/EIS states "[c]overage allowed within LCD 1c in the study area is 315,714 sf." (Id. at p. 3.6-30.) The environmental document gets this total by adding the TRPA verified existing coverage (141,582 sf) and the "banked coverage" (174,132 sf). However, it is not at all clear where the 174,132 sf of "banked coverage" comes from. Looking at Table 3.6-4 at page 3.6-19 LCD pre-1972 coverage and TRPA verified coverage are the same (141,582 sf).[1] This table shows that 174, 132 sf of LCD 1c soils have been restored. How can the restored pre-1972 coverage LCD 1c soils exceed the existing pre-1972 coverage?

Regarding Alternative 2's coverage of LDC 1c soils the EIR/EIS/EIS states,

> 55,020 sf of coverage is proposed in LCD 1c, including cart paths, small bridges, designated trails, as well as other existing coverage that would not be modified. This is a decrease of 86,562 sf from existing coverage (141,582 sf) within LCD 1c.

(Id. at p. 3.6-30.) Again this is confusing as this suggests that Alternative 2 is going to add an additional 55,020 sf of impervious (hard/soft coverage) surfaces on LCD 1c soils in addition to the existing coverage that is not being modified by this project.

---

[1] This raises again the question how the LCD 1b pre-1972 coverage and TRPA verified coverage numbers can be different in this table.

What procedure/level of detail did TRPA use to verify both soft and hard coverage for Washoe Meadows SP and Lake Valley SRA? When was this coverage verified?

Page 3.6-19 states, "[a] program has been implemented by State Parks to restore some of the disturbed areas of coverage and the pre-1972 coverage has been banked as mitigation." It is also not clear what coverage has been restored, or is intended to be restored or what relationship this coverage has with the pre-1972 verified coverage? We are assuming that "banked coverage" has been restored.

How much Class 1b new coverage is proposed as part of Alternative 2 on the Washoe Meadows State Park? Is any new Class 1b coverage proposed at Lake Valley SRA under this alternative?

Grandfathered coverage for the sensitive Class 1b soils is over three times what would be allowed under Bailey based on lot size. (Bailey Class 1b coverage would be approx. 134,361 sf.) Would a more appropriate mitigation be the permanent retirement of excess Class 1b coverage rather than banking for future use?

There is confusion about the 174,132 sf of Class 1c coverage that is banked. Why is the pre-1972 coverage of 141,582 sf less than the banked or verified coverage?

Class 3 coverage of 109,025 sf represents "potential" Bailey coverage not "existing site coverage" already on the ground or banked or restored coverage. Will potential class 3 coverage be used for the golf course expansion? Where is this coverage located? AOB8-4 cont.

Would the 56,365 sf of LCD 3 coverage remain - as existing roads and trails unrelated to the golf course relocation? What future plans would there be to restore these roads and trails? How much of this coverage is associated with the golf course?

Land Capability Class 5 coverage will be new coverage in the Washoe Meadows State Park. This is land never covered previously which will require extensive site grading and tree removal. The class 5 coverage area is also shown within a "dry meadow."[2] What are the impacts going to be to the dry meadow as a result of watering the golf course? Would it become a wet meadow? What criteria are used to distinguish the land capability of a dry meadow from the capability for a wet meadow?

Tables 3.6-8 and 3.6-9 are also very confusing. Is it accurate to state that under current conditions 754,228 sf of coverage exist within the two State Park units today? How was this number derived?

If coverage can be reused and banked rather than permanently retired then what is the net environmental benefit of this temporary reduction? (Id. at pg. 3.6-32.)

---

[2] During a three hour rain event in November 2010 area mapped as "dry meadow" contained standing water and was boggy.

The EIR/EIS/EIS needs to have a clear coverage chart breaking down existing coverage, compared to verified pre-1972 coverage, and separating new proposed coverage for each land capability classification. The analysis for the coverage verification should also be explained in detail. A copy of TRPA's coverage verification should be appended to the EIR/EIS/EIS. AOB8-4 cont.

D. Alternative 2 Develops Expanded Golf Course on Sensitive Soils.

Goal #1 Policy 2. No new land coverage or other permanent disturbance shall be permitted in land capability districts 1-3 except for public outdoor recreation facilities may be permitted with findings.

The golf course expansion at Washoe Meadows SP may be permitted on LCD 1b and 1c soils if:

(1) The project is a necessary part of a public agency's long range plans for public outdoor recreation;
(2) The project is consistent with the recreation element of the Regional Plan;
(3) The project by its very nature must be sited in land capability districts 1-3;
(4) There is no feasible alternative which avoids or reduces the extent of encroachment in land capability districts 1-3;
(5) The impacts are fully mitigated; and
(6) Land capability district 1-3 lands are restored in the amount of 1.5 times the area of land capability districts 1-3 which is disturbed or developed beyond that permitted by Bailey co-efficients.

Please explain why the expanded golf course must be sited on LCD 1b and 1c soils? If Alternatives 3 and 4 are feasible alternatives, how does Alternative 2, which includes the development of the expanded golf course on LCD 1b and 1c soils comply with Item (4), above. AOB8-5

Due to the inaccurate description of the baseline environmental conditions, especially the location of the wet meadows, springs, and fens, and the "conceptual" layout of the proposed golf course on the west side of the river, the EIR/EIS/EIS fails to address the question as to whether all the impacts of the golf course on those uncommon resources dependent on LCD 1b and 1c soils have been fully mitigated.

Under Alternative 2, 378,499 sf of coverage is proposed in LCD 1b. Only 134,361 sf of coverage would be allowed per Bailey. To satisfy the requirements of Policy 2B(6) the "project" must restore 366,207 sf of LCD 1b.

AOB8-6

Also, under Alternative 2, 55,020 sf of coverage is proposed in LCD 1c. Only 5,392 sf of coverage would be allowed per Bailey. To satisfy the requirements of Policy 2B(6) the "project" must restore 74,4422 sf of LCD 1c.

Why isn't this restoration requirement and cost factored into the comparison of Alternatives in the EIR/EIS/EIS?

E. Alternative 2 Develops Expanded Golf Course on Restored Park Sites. AOB8-6